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The National Social / Health Maintenance Organization Demonstration

Final Report to HCFA

May 1987

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EXECUTIVE SUMMARY

This report covers the work accomplished by the Social/HMO staff at Brandeis University during the second three-year HCFA grant period for the Social/HMO project, from July 1983 - June, 1986. The work plan during this period included three major areas: site monitoring and technical assistance; producing reports for HCFA on substantive areas of Social/HMO development, as well as ongoing quarterly reports on progress; assisting HCFA in bringing in the outside evaluator for the project and working with the evaluator to develop comparable data bases for both Social/HMO and comparison group members.

The three years of this grant period were eventful in that just prior to the anticipated opening of all four Social/HMO sites in December, 1983 - January, 1984, the Office of Management and Budget raised questions about the project and withheld approval of the Medicare waivers necessary to allow the project to go forward. The seven month dispute that followed between the Office of Management and Budget and federal health officials was resolved by Congress in the summer of 1984, when an attachment to the Deficit Reduction Act allowed HCFA to issue the necessary waivers. By this time, some sites had been forced to let go staff, delays occurred in recruiting new staff, as well as in negotiating the final terms and conditions of the waivers. By November, 1984, all sites had accepted HCFA terms and conditions, and by January 1985, service agreements had been signed between HCFA

and all four demonstration sites. The Minneapolis site opened its doors in January, 1985, and the other three sites (in Portland, Oregon; Brooklyn, New York; Long Beach, California) began operations in March, 1985.

One consequence of this year long delay in the start of Social/HMO operations was that the sites began their marketing in a much more competitive environment than had existed a year before. In the meantime, the TEFRA Medicare HMO regulations had passed, encouraging many more HMOs to develop Medicare risk contracts and to go out aggressively for the Medicare market. The fierce competition from HMOs has severely impacted marketing of the Social/HMO programs in at least two areas: Minneapolis and Long Beach.

Monitoring and Technical Assistance:

Throughout the grant period, Brandeis staff have continued their role of monitoring and technical assistance to the sites. The bulk of this effort was spent in overseeing the implementation of the Social/HMO's unique systems: queuing; the common assessment instruments and procedures; the nursing home certifiable (NHC) procedures, verification and reimbursement plans. Brandeis staff worked with HCFA and site staff to assure that each of these systems was implemented according to the agreed upon procedures.

Data Quality:

In addition to these specific monitoring and technical assistance tasks, Brandeis staff worked with HCFA to produce a common set of data definitions for site implementation, so that a comparable cross-site data base could be generated for both the evaluator's and other research. The first step in this process was to produce a data dictionary that outlined definitions for all of the major data elements needed for evaluation and research. Brandeis staff also worked with site staff in documenting the availability and quality of the data available at each site and in working to improve both its comparability and quality. Throughout the grant period, Brandeis staff has continued training assessment interviewers at all sites, set up ongoing, on-site training and supervision of all assessment interviewers, and since operations began, has checked at six-monthly intervals the inter-rater reliability of assessment interviewing throughout the project.

This report contains five chapters and sixteen appendices. The five chapters describe and discuss the major Social/HMO systems: marketing; the queuing mechanism; management information systems; finance in relation to reimbursement of nursing home certifiable (NHC) clients; case management procedures related to targeting of the chronic care benefit. A brief summary follows of the material covered in each chapter.

Marketing:

During the first eighteen months of operations, the slow enrollment at three out of the four Social/HMO sites was cause for alarm on many grounds. The underlying causes for these disappointing enrollment results are complex. The first chapter of this report examines the marketing approaches used by each site and begins to draw some general conclusions about the factors influencing marketing strategiea and marketing efficacy in each of the four very different markets. Site visits by Brandeis staff were conducted during the late Spring of 1986. At least one research staff member spent several days at each site, conducting semi-structured interviews with the marketing director, site director, other marketing staff and in some cases, staff of marketing consulting firms used by the sites. The essential thrust of this research was to survey the marketing issues encountered at each site and to examine the solutions developed. This inquiry was structured around four categories of analyses: price, promotion, local environment, and organizational aspects of marketing.

Section I of the chapter on marketing details in a descriptive manner the marketing experiences at each site. Section II presents some tentative conclusions at this early stage of the demonstration.

The Queuing Mechanism:

A major goal of Social/HMO enrollment is to enroll a cross section of the target population in terms of the functional impairment levels

found in the local elderly population. It is important for the sites to monitor selection bias of applicants, since adverse selection would result in underpayment and positive selection in overpayment within a prepaid, capitated health care system. In order to control case mix at the time of enrollment, sites were allowed the option of implementing a queuing mechanism based on a self-report health screen. All sites except Kaiser opted to use this mechanism in the first 18 months of operations. In Chapter II, the report on the queuing mechanism, two questions are addressed:

-Has the queuing mechanism assisted sites in maintaining an enrollment profile which matches their original targets?

-How well has the queuing mechanism worked? Is it reliable and valid?

Section I of this chapter examines the rationale for case mix controls in the Social/HMO. Section II reviews the development of the Social/HMO demonstration queuing protocol. Section III examines the implementation of the queuing mechanism at each of the three sites that have used it, and presents qualitative and quantitative analyses of the queuing experience to date. Section IV presents some conclusions about the use of queuing in the Socil/HMO demonstration.

Management Information Systems:

Chapter III of this report describes the planning and implementation of the management information systems (MIS) at each of the four Social/HMO sites. An MIS involves more than the use of computers to generate reports. It is a system designed to assist

management to operate effectively by providing timely, accurate data on critical areas of performance on a regular basis. In capitated health care programs the critical areas of performance are: membership, utilization and cost. The value of the MIS does not lie in the technical sophistication of its automated components, as much as it does in data integrity and the extent to which managers are able to use data from the system to identify areas in which performance is not optimal.

This chapter is written in two major sections. Section I describes the plans and progress at each site in implementing their MIS, up to April 1986. Section II begins to identify performance indicators that can be generated from the MIS data base in order to summarize project operations.

Finance:

Chapter IV on Finance focuses on the experience of the four Social/HMO sites in using a reimbursement scheme that adjusts both Medicare and Medicaid payments by a disability underwriting factor. This formula pays the Social/HMO sites at higher rates for members assessed to have functional deficits severe enough to need nursing home care, according to preadmission screening criteria used by the state in which each site is located. This formula also reduces reimbursement for community resident categories in the Medicare average adjusted per capita cost (AAPCC) to compensate for the higher rate for nursing home certifiable (NHC) members. This approach is based on prior research

which has shown that severely impaired community residents are relatively as expensive to Medicare as nursing home residents.

This chapter is written in four sections and focuses on the experience of the four Social/HMO sites with the NHC formula and verification of the assessment processes that result in determination of the NHC status. Section I reviews the rationale for the development of NHC reimbursement. Section II describes the means by which each site verifies their classification of members into NHC status. Section III provides viewpoints from both the Social/HMO's case management departments and the verification agencies on the implementation of the verification processes. Section IV provides analyses of preliminary data regarding the verification processes, recertification of NHC clients, and reimbursement from Medicare under the regular and NHC reimbursement formulas. An appendix to this chapter (appendix 8) clarifies how the NHC underwriting factors are derived from the regular AAPCC underwriting factors.

Case Management: Assessment, Eligibility, Initial Screening for the Chronic Care Benefit:

Chapter V describes case management processes in the Social/HMO, focusing on the development of assessment instruments, initial screening and eligibility determination for the Social/HMO expanded, chronic care benefit. A major purpose of case management in the Social/HMO is to achieve efficient targeting of the Long Term Care benefit. The first level of targeting is the efficient selection of

clients, who are determined to be "at risk" and eligible for the chronic care benefit, according to each site's eligibility criteria. A second level of targeting is the allocation of long term care resources to clients deemed eligible. This report focuses on the first level of targeting. Section I describes the assessment instruments that were developed for initial and ongoing assessment of Social/HMO enrollees and the issues involved in developing these instruments. Section II describes staffing and training of case managers in each of the Social/HMO case management units. Section III outlines the eligibility criteria and intake procedures used by the sites and discusses some cross-site differences in initial intake and targeting of cients for the chronic care benefit. The instruments used and the general protocol for assessment are appended (appendices X - XV).

CHAPTER 1

MARKETING

Introduction

The primary purpose of the S/HMO experiment is to evaluate the efficiency of the intervention in terms of its impact on costs and quality of care. As initially designed the Demonstration was not intended to determine the "marketability" of the S/HMO, and, indeed, it is not particularly well suited to provide such a determination. Nevertheless the substantial enrollment problems encountered at three of the sites has drawn attention to this aspect of the Demonstration. As of July 1986, Seniors Plus has 1468 members, Elderplan 1659 and SCAN about 1696. Only Kaiser has managed to surpass its enrollment goal of 4000 (they have approximately 4,200 members).

These relatively low enrollments are a cause for alarm on many grounds, both operational and evaluative. The underlying causes for slow enrollment are complex and subject to dispute. However the kinds of steps open to the sites for dealing with the problem are more clearly understood. The bulk of those strategies fall under the rubric of "marketing." The purpose of this paper is to examine the marketing approaches used by each site and to begin to draw general conclusions about the factors influencing marketing strategies and marketing efficacy.

The Research

The central thrust of the inquiry we undertook was to survey the marketing issues encountered at each site and to examine the solutions

developed. Site visits were conducted during the late Spring of 1986 and at least one researcher spent several days at each site. During that time semi-structured interviews were conducted with those responsible for the implementation and/or development of the site's marketing. In general, the site director, the marketing director, a marketer and at least one member of the sales staff were interviewed. In one case a representative of the site's marketing consultant firm was also interviewed.

Based on the preliminary work done at Brandeis (which included exploratory discussions with some people at the sites as well as a review of quarterly reports and marketing materials) we decided to structure our research around a modification of the classic marketing formulation of "price, product, place and promotion."

To this end we structured both our inquiry and our findings around four categories of analysis. The first was the nature and "marketability" of the S/HMO product. This category includes not only the character of the product's benefits but also its price. For us price has a broader meaning than simply monetary costs and includes all "disincentives" to membership. The second category employed closely follows the traditional one of "promotion." Under this category falls all the immediate issues facing the sites when they try to effectively get their product before the public. The third category of importance is the environment in which each site operates. The kind and level of competition differs so substantially from site to site that, in our judgment, no consideration of either the product or price can be meaningful without an appreciation of environmental differences. Finally we examined the organizational aspects of marketing. The original model of the S/HMO Demonstration postulated that structural

differences among the sites might be reflected in differences in program implementation. Analogously we postulated that those difference might also find reflection in marketing differences.

Section I of the Report details the experiences of each site and is essentially descriptive in nature. However the descriptions are structured around our four categories. Section II of the report presents our tentative conclusions. Given the limited nature of the study and the great variations found across the small number of sites, these conclusions must remain speculative. Our aim in that section is to identify areas that seem to us of particular importance and so suggest fruitful additional inquiry.

I.SITE BY SITE EXPERIENCES

A. SCAN Health Plan, Long Beach, California

1. Organization

At the start of the demonstration project, SCAN was new to the HMO business. The organization pursued establishing a S/HMO because it saw the S/HMO as the highest level of achievement for an organization in coordinating health care to the elderly. Prior to the opening of the S/HMO, SCAN's primary business was to provide long-term care services to a frail elderly Medicaid population.

SCAN decided to structure the SCAN Health Plan as an IPA. Many factors went into this decision and marketing concerns played a significant role. From the marketing point of view an IPA model recommended itself to SCAN because it could provide access to the patient pools of member physicians. This would provide privileged access to a patient population and obviate the need for potential members to change primary care physicians. It was felt, at SCAN and at other sites, that some potential members might be

hesitant about changing their physician and that this might prove an impediment to enrollment. The final potential marketing advantage of an IPA was the opportunity of using physicians as marketers. If member physicians thought well of the plan their recommendations might be very influential with their patients.

SCAN's experience also indicates that there is a reverse side to the marketing advantages to an IPA model. (We are only concerned here with marketing issues, obviously different models for the medical practice in a HMO have important operational implications as well.) Inexperience on the part of the IPA physicians and the IPA itself led to some utilization and reimbursement difficulties early in the relationship. While these problems have been largely resolved, some member physicians continue to blame the S/HMO for the early difficulties and, as a result, may be dissuading rather than persuading their patients regarding S/HMO enrollment. The practical impact of this is not clear but it does highlight the role physicians can play in mediating between members and the S/HMO.

SCAN's management identified another organizational component of marketing experience. They felt that their lack of marketing experience hurt their early efforts. This was manifest both in difficulties with marketing firms and with a certain lack of success in hiring a suitable marketing director. The first two marketing directors hired failed to implement a successful marketing strategy. During the approximately same period SCAN hired and fired several marketing firms. The present director of marketing has 14 years experience in HMO marketing.

Since February 1986, SCAN has also increased its emphasis on the sales aspect of its enrollment effort. Indeed, the official title of the new

marketing director is Director of Sales and Marketing. SCAN has doubled its sales force from 4 to 8 people and instituted an incentive system to increase the actual signing up of enrollees.

2. Environment

The Long Beach market area is extremely competitive with, according to SCAN, 12 or 13 senior HMO plans and another 22 supplemental health insurance plans being offered to elders. Much of the competition in the area is new with one of SCAN's biggest competitors, Family Health Plan (FHP), starting operations in August, 1983. FHP aggressively marketed both a high and low option plan and had enrolled 10,000 elders as of January, 1984. FHP's low option plan is a zero premium plan and the high option plan (very similar to the the S/HMO except for the long-term care component) was priced at $35.00 per month. The high option plan has since been dropped.

The news that FHP quickly enrolled 10,000 members was viewed by SCAN management as indicating that there was indeed a sizable market for a S/HMO-like product; but the bad news was that FHP, rather than SCAN was reaping the benefits of entering the market first. The major concern was that FHP might have preempted most or all potential S/HMO enrollees. The year-long OMB delay was very unfortunate for SCAN. The senior health care market has since been flooded with health plan options. Premiums for other senior plans range from zero dollars (which includes at least 5 plans) to $40.00 per month. Some supplemental health insurance policies cost up to $89.00 a month and one nursing home care insurance policy costs $2,000.00 per year!

The state of California regulates advertising through a licensing department called Knox and Keene. Knox and Keene has disallowed ads that compared SCAN's premium with that of supplemental insurance plans, calling this comparative advertising "puffing." This has increased SCAN's difficulty in defining its competition as the more expensive Medi-gap policies rather than the less expensive HMO competition. Another environmental factor affecting marketing was the sporadic availability of HCFA's list of Medicare members. During one large marketing campaign, SCAN prematurely mailed a brochure because management was concerned that the mailing list would be retracted by HCFA. As a result, SCAN's materials were not as well prepared as they would have liked.

Retiree groups represent a large potential pool of members for SCAN. Lengthy discussions between McDonald/Douglas, a major employer in the Long Beach area, may ultimately result in McDonald/Douglas retirees' joining SCAN during the company's next open enrollment period in January and February of next year. SCAN noted, however, that employers will often want benefit packages to be tailored to requirements established by each company. SCAN's limited service area also represents a disincentive for companies to offer the plan because of the relatively small number of people who could be served.

3. Product

The basic product offered by SCAN is little different from that offered by the other three sites. The benefits include comprehensive acute medical care, inpatient and outpatient physician services, dental and optometric services, prescription drugs, etc. and up to $7,500 of nursing home and

other chronic care services. The major differences between these benefits and those offered by the other S/HMOs are the dental benefit and the provision of physician services via independent physicians rather than salaried group or staff physicians. SCAN's monthly premium is $40.00, making it the highest priced HMO plan in the Long Beach area. The relatively high price of the plan is considered a major obstacle to signing potential enrollees. Long Beach consumers have several health plan options that provide similar benefits to the S/HMO's (minus the long term care) at no cost.

It was reported at SCAN that the major selling points for the plan are: independent physicians, dental care, optometric services, prescription drugs, no claims forms and, if a person is living alone, the chronic care services. Major disincentive to joining the plan were identified as: doctor and hospital lock-in, good existing retirement benefits, price, and the demonstration status of the project. People are reluctant to join because of they are uncertain that SCAN can provide them with health services after the demonstration. The executive director, the director of marketing and SCAN's top salesperson contend, however, that competition and price are the biggest disincentives to joining the S/HMO.

4. Promotion

SCAN has tested numerous promotional themes and mediums but the primary means of promoting the plan has been through the use of direct mail. The first direct mailer was sent to a total of 90,000 people, whose names were included on the HCFA list of fee-for-service Medicare beneficiaries. The response rate was approximately 0.5 percent with a 50 percent conversion rate (the percentage of respondents who finally enrolled). If a respondent

was contacted for a face-to-face interview by a sales representative, the conversion rate was much higher. SCAN management was not satisfied with the promotional piece because they thought that it contained too much information and because it required a lot of work to fill out the application portion. However, two simpler versions of the first mailer were tested and produced similar response rates.

Delays and inability of SCAN's advertising firm to generate concepts and promotional copy that satisfied the staff and board members at SCAN caused SCAN to fire the agency. Several new ad agencies were approached but again, SCAN was unimpressed with the agencies' art work and creativity. An advertising consultant produced an ad that features the concept, "Freedom for Seniors" but it did not generate a large response rate. The next ad agency, Cox and Birch, was hired because of their experience in the elder health care market. They had been Family Health Plan's advertising agency for three years. Cox and Birch produced an ad that pictured a group of unhappy elders facing the same direction and was captioned, "Don't get herded into the wrong health plan." SCAN's staff and board members were not impressed by the ad but were talked into running it. In retrospect, SCAN wishes it had followed its initial reaction but at the time, the decision was made to respect the advertising agency's expertise. The ad, which portrayed HMOs in a negative light did not generate a good response and the agency was eventually let go. Several themes have been tried, all of which have generated approximately the same response rate: .5 percent.

The latest ad campaign features a bird nest cradling an egg that has been cracked open with 20 and 50 dollar bills visible inside and is captioned, "protect your nest egg".

This campaign is being run in newspapers and is featured in a new mailer. At the time of this writing, it is too early to know how successful the campaign is at generating interest. SCAN's management reports that generating interest is only part of the problem. More recently, the bigger problem may be in converting interest into membership. Hope for increasing the conversion rate is being pinned on the increased size of the sales staff and upcoming training sessions designed to improve their skills.

B. Elderplan, Brooklyn, New York

1. Organization

Elderplan, like the SCAN Health Plan, did not exist as an operating HMO prior to the demonstration. Elderplan is sponsored by the Metropolitan Jewish Geriatric Center (MJGC) whose goals for the S/HMO include helping to alleviate the nursing home bed shortage and more generally, improving the quality of the elder health care system.

Elderplan organized its primary care physician services through a small new group of geriatric physicians who are affiliated with the Cornell Medical School and serve only Elderplan members, with referrals to a panel for specialist services. The decision to use a group model for primary care was based on the fact that controlling physician utilization was a particularly acute concern in the New York City area and an IPA model was perceived as not affording adequate control over primary care utilization. More recently, the management at Elderplan has been considering pursuing contracts with independent physicians in order to increase access to primary care in more areas of Brooklyn. Elderplan is approaching this

decision with considerable caution given the reluctance of physicians to control referrals.

2. Environment

The Brooklyn area presents a vastly different environment for a S/HMO than does the market areas of the three other sites since it is virtually untapped by HMOs. Because the HMO concept is so new, the issues affecting Elderplan's marketing campaign are much the same as those that would affect any new TEFRA HMO starting up in Brooklyn. Elderplan faces the same circumstances that the HMOs encountered in their early years and so some of the generalizations about marketing at the other three S/HMOs may not pertain to Elderplan.

Elderplan's nearly exclusive competitor is Blue Cross's supplemental insurance plan. Blue Cross is an institution which is familiar to and trusted by nearly everyone in Brooklyn. Many elders were insured by Blue Cross when they were employed and are used to that insurance mechanism. As a result, those at Elderplan say, these former Blue Cross subscribers may think that they will receive the same coverage from Blue Cross's Medicare supplementary insurance as that which was provided by their employee Blue Cross plan. Educating consumers about the deficiencies of Medi-gap insurance policies is particularly difficult because Blue Cross is virtually the only plan Brooklyn residents have ever been exposed to. New Yorkers have not had the need or opportunity to compare plans.

In the view of some at Elderplan a significant deterrent to joining Elderplan for current Blue Cross insurance subscribers is that if one wants to re-join Blue Cross (e.g., in the event the demonstration ends),

pre-existing conditions will not be covered by Blue Cross until a waiting period of up to 6 months or more elapses. While this is a potential problem at each of the sites, this is a particularly acute problem in New York where Blue Cross is reported to be the only major institution offering health insurance to elders.

Although HMO experience in New York is limited, Elderplan may be associated with the Health Insurance Plan of New York (HIP) which is virtually the only, and certainly the best-known HMO in New York. It is possible that the negative image of HIP among many New Yorkers is having an adverse effect on marketing Elderplan. Up to this point, Elderplan has downplayed the fact that it is an HMO in order to avoid association with HIP.

3. Product

Elderplan offers essentially the same benefits provided by the other S/HMO sites, although unlike the other sites primary care is provided by Geriatricians. Specialist care is provided by approximately 145 independent specialists who contract individually with Elderplan. Staff feel that the most appealing benefits are drugs, eyeglasses, hearing aids and foot care. Long-term care is not considered to be a concern among elders.

At the outset of operations, inpatient hospital services were provided by the Brooklyn Caledonian Hospital. Management at Elderplan discovered that the hospital did not have a good reputation among some Brooklyn residents and responded by contracting with a more prestigious hospital in order to improve the image of the quality of care of the plan.

Perhaps because the HMO concept is little understood in New York, the staff at Elderplan believe that the standard HMO "lock-in" represents a problem for them. This problem not only affects potential enrollees but, because of some improper training and incentives approaches, may have contributed to Elderplan's early disenrollment problems. Training now emphasizes the clear explanation of lock-in to enrollees and the incentive system for the sales staff is now conditioned upon enrollees remaining in the plan a minimum period.

At $29.89 a month, price was not considered a major obstacle to enrollment. This monthly premium initially underpriced the Blue Cross insurance policy by $6.00. Given indications in the marketing survey and focus groups, management was more concerned with whether or not someone would be willing to switch from Blue Cross to Elderplan based on considerations other than affordability of the plan.

4. Promotion

Prior to operations, Elderplan conducted a telephone survey to assess the Brooklyn environment. They did this, presumably, so as to tailor their promotional materials to consumer concerns. Among their findings, they discovered that elders said:

> They were reluctant to leave their doctors even if they had an unsatisfactory relationship with their doctor.
>
> Drugs, eyeglasses, hearing aids, etc. were important benefits.
>
> Long-term care (home or community care) was not a big concern.
>
> Brooklyn residents own Medicare supplemental insurance at similar rates to the U.S. average (approximately 64%).

Some respondents also said that medical center location was an important issue.

Subsequent to the consumer survey, Elderplan has conducted several focus groups to test promotional themes and advertising copy. The first focus group produced the slogan "Take the worry out of Medicare. Add health to your years." Focus groups have continued to contribute to the design and testing of promotional themes at Elderplan. Elderplan believes that this approach is constructive and intends to continue it.

Elderplan has been successful in generating responses to promotional materials. It has advertised in newspapers and on radio, conducted several direct mailings, implemented a telemarketing campaign and arranged numerous community presentations in an effort to create awareness of and spur interest in Elderplan. According to Elderplan's management, the most successful medium to date is the direct mail strategy - one mailing alone reportedly generated approximately 8,000 responses. Radio, newspapers and even community presentations have produced little direct response. Radio and newspaper may, however, serve to create awareness that could be a precondition for people to respond to other promotional techniques. Elderplan plans to continue to use mass promotion strategies and to further test radio.

Elderplan hired a corps of approximately six elders from its membership for the purpose of helping promote the plan. These six elders, called "senior ambassadors," attend group presentations that are made by marketing representatives and give testimonials for the plan. The marketing staff report that the senior ambassadors are helpful in generating interest and answering questions regarding the plan. The ambassadors are not involved

in enrolling members nor are the marketing representatives. The community presentations serve to introduce the HMO concept and product. Elderplan has found that the actual sales process is most effective on an individual face-to-face basis after people have been exposed to the Elderplan concept in a group setting. The enrollment process is the responsibility of a sales staff that is separate from the marketing staff.

Elderplan attributes its relatively poor record of converting inquiries into enrollees to the lack of adequate sales staff. The importance of the sales portion of marketing was underestimated by virtually all of the S/HMO planners. Additional "enrollment counselors" have been added to the marketing staff and they have received training in selling the plan.

The issues that face Elderplan in marketing are little different from those that would face any HMO starting up in Brooklyn. The Social component of the S/HMO does not play a role in marketing because (1) it is not highlighted so as to avoid adverse selection, and (2) the HMO concept of health care in Brooklyn is itself new and thus creates a set of marketing issues that is essentially unaffected by the provision of long-term care. Management at Elderplan expect that growth in enrollment will be slow and steady, reflecting the initial growth curve experienced by HMOs when they were being first introduced in other parts of the country.

C. Seniors Plus, Minneapolis, Minnesota

1. Organization

Seniors Plus is sponsored by two organizations which share equally in the financial risk arrangement, Group Health Inc. and the Ebenezer Society. Group Health provides S/HMO members with acute care services and Ebenezer

Society provides the long-term care portion of the benefit package. Group Health is a staff model HMO that provides medical services to over 215,000 members, approximately 6,000 of whom are elders enrolled in their TEFRA HMO plan (called Group Health Seniors), and nearly 1,500 in Seniors Plus. Ebenezer is a large, chronic care provider which operates four nursing homes; manages nine congregate housing facilities and provides a comprehensive range of home health services, including homemakers, adult day care, respite care, visiting nurses, home health aids and elder companionship.

The motivations of the Seniors Plus partners have several components. Groups Health is interested in being an innovator in the development of health care delivery systems. It is also interested in securing for itself a reasonable share of the elderly market in Minneapolis. Ebenezer's goals appear to be similar but somewhat different. Ebenezer's goals for involvement in the S/HMO are, in part, based on its desire for realizing a more stable and rational means for financing community-based care. Ebenezer also views the S/HMO simply as a superior means to serve elders.

It was intended that Seniors Plus start marketing at approximately the same time that Group Health Seniors was introduced, early 1984. But, the OMB delay in approval from the government meant that the Group Health Seniors plan began enrolling members about a year earlier than Seniors Plus. Seniors Plus initially developed its marketing strategy with in-house staff and consultation from Group Health's primary ad agency but the delay necessitated laying off the marketing director. In April, 1984, Seniors Plus contracted with Group Health to staff the development of the marketing strategy and conduct sales for Seniors Plus. Shortly before the

demonstration actually began, Group Health decided to change their primary ad agency and wanted the new agency to review the Seniors Plus product. This resulted in an almost total redevelopment of marketing materials including brochures, benefit inserts, member handbook and even a new name for the S/HMO (details regarding the decision to change the name from "Medicare Partners" to "Seniors Plus" is described under the heading "promotion"). Group Health, at this point, became the primary source for both the marketing expertise and sales staff for Seniors Plus, although outside assistance is still used to supplement the work of the Group Health marketing staff.

Group Health increased its commitment to the S/HMO in September, 1985, when an influential Corporate Vice President at Group Health was given responsibility for assuring high priority to Seniors Plus needs within the organization. This change occurred at the same time that the second Seniors Plus marketing manager was resigning. The third marketing manager did not begin work until January, 1986. The staff is now optimistic that the newly developed marketing plan, combined with improved organizational capacity in marketing and sales, will lead to meaningful enrollment improvements.

2. Environment

The environment in Minneapolis is very competitive, much like SCAN's environment in Long Beach. The two major competitors of Seniors Plus are Physician's Health Plan (PHP) and SHARE. PHP is an IPA model HMO that has enrolled 40,000 elderly members and SHARE, a group model HMO, has 50,000 elderly members. SHARE

and PHP were allowed to health screen applicants during their start up period as Medicare HMO demonstration sites, which enabled them to "cream" the healthier elders into their membership. The remaining elders in the community are likely to be both more difficult to enroll and more medically impaired than the average old person.

Price wars among the elder health care plans in the Minneapolis-St. Paul area began early in 1985 when Share Health Plan offered free membership to new members for the remainder of the year. In late winter of 1986, SHARE dropped its monthly premium from $19.95 to $9.95 and Group Health followed by lowering the price of Seniors from $19.95 to $9.95. Shortly thereafter the price of Seniors Plus was also lowered, from $29.95 to $24.95. In March, 1986, PHP restructured its plan to reduce premiums to members who agreed to restrict their choice of hospitals. Senior Health Plan and Med Centers also reduced premiums within 90 days of SHARE's decision to offer free membership to new members for the remainder of the year.

3. Product

Seniors Plus offers a full range of acute care services that are comparable to or exceed those offered by competing health plans, plus the long-term care benefit. In Hennepin County (containing Minneapolis and the S/HMO's primary market), Physician services are provided by staff physicians at any of 14 Group Health clinics. Group Health's Seniors plan offers the same benefits as Seniors Plus excluding the long-term care benefit. While the price wars persuaded Group Health and Ebenezer to drop

the monthly premium for Seniors Plus it remains among the more expensive health plans in the area. Also, the differential between Seniors Plus and Group Health Seniors has increased from $10.00 (pre-price war) to $15.00 or, expressed in terms of percentages, Seniors Plus now costs 250 percent of Group Health Seniors versus 150 percent at the $10.00 differential. This may have important consequences for the relative success of the two plans in the market. The marketing staff at Group Health contend that consumers' decision-making process regarding health plans is first to decide whether or not to receive care from a Group Health affiliated plan (Group Health Seniors or Seniors Plus) and then to chose between these two plans.

Group Health and Ebenezer have well established reputations in the twin city area. Until recently, Group Health was the largest HMO in the state and Ebenezer is well respected for providing nursing home care. At one point, however, the association of nursing home care (via sponsorship by Ebenezer) with Seniors Plus was a concern. Some elders are so averse to nursing homes that the nursing home benefit was viewed as a potential liability rather than a selling point. For some of those people who did not view nursing home care as a negative benefit, the benefit was too shallow to lend much additional value to Seniors Plus (this is, of course, equally true at all sites). Another problem cited by management at Seniors Plus is the relative disinterest people express in the long-term care benefit when they are healthy.

4. Promotion

Unlike any of the other three plans, Seniors Plus faces a plan with an identical benefit package, except for the long-term care component. If the two plans (Seniors Plus and Group Health Seniors) had been introduced in the market simultaneously and received equal promotional resources it would have been possible to test the relative marketability of the social component of the S/HMO. Unfortunately, the jump on marketing that Group Health Seniors had makes it difficult to measure the relative importance of the "S" in S/HMO to consumers. Nevertheless, over the long run, it may be possible to learn how much people value long-term care insurance by following the relative enrollment rates of Group Health Seniors and Seniors Plus.

Promotional activities received a slow start for Seniors Plus, due in part to problems with advertising agencies that produced poor quality and/or late advertising copy. Inexperience in marketing was also cited as hindering development of the marketing strategy. As was the case at the other sites, the difficulty of marketing the S/HMO was not immediately appreciated. Another obstacle to the promotion of Seniors Plus was the initial name of the S/HMO, "Medicare Partners" which, in January, 1985, was reviewed by an ad agency through telephone research and by focus groups comprised of elder consumers, and was considered a liability to promoting the S/HMO. Changing the name of the S/HMO set the promotional campaign back significantly. It was May, 1985, before the first newspaper ad ran.

The sales staff of Group Health are employed to sell Senior products,

that is, both Seniors Plus and Group Health Seniors. The three group sales representatives conduct open enrollments, maintain accounts and renew policies for senior products. There are also three telemarketing salespeople who have been trained to sell both Seniors Plus and Group Health Seniors. The training had two basic goals. One was to avoid adverse selection into the S/HMO, as encouraging needier patients to join Seniors Plus was (and is) a natural tendency. Secondly, it was found that Seniors Plus requires longer and more detailed explanations than the Group Health Seniors program. Training was needed to ensure that the sales staff were both capable of, and willing to, provide these longer explanations. A portion of all salespeople's salaries (reps and telemarketing) is determined by the number of people they enroll in either the S/HMO or HMO and their commission is the same regardless of the plan one chooses to join.

Recognition in the community has been identified as a problem for Seniors Plus. The free promotion Seniors Plus has received in the news media because of the attention the S/HMO has attracted, has been beneficial. But, the precise role that mass media plays in people's decision making processes is still not understood. Management at Seniors Plus has been disappointed with the results of print media.

D. Medicare Plus II, Portland, Oregon

1. Organization

Medicare Plus II is sponsored by the Northwest Region of Kaiser Permanente and is administered through the Center for Health Research.

Kaiser has been providing prepaid health care since 1947 and is, by far, the largest HMO in the Portland/Longview/Salem/Vancouver (OR) area with over 290,000 members. The Center for Health Research has been conducting research in numerous areas of health since 1964. Both Kaiser's and the Center's goals regarding the S/HMO demonstration are to learn how to integrate a long-term care benefit with the existing acute medical care system.

Physician services to members of Medicare Plus II are provided by Kaiser's physician group. The long-term care services are provided by Kaiser's home health agency, a number of community care providers, and selected nursing homes. Kaiser has a well established name in the community and provides care on a fee-for-service basis to approximately 8,000 elders. Another 14,000 elders are members of Kaiser's Medicare Plus I, which was a demonstration site for the Medicare HMO demonstration beginning in August 1980. Plus I closed enrollment with approximately 8,000 members in 1981 and Kaiser did not make another HMO plan available to elders until Plus II began operations in March, 1985. Plus II is available only to residents of Multnomah County and early in 1986, Plus I reopened its doors to applicants, but only to people living outside Multnomah County. Kaiser made a decision not to enroll Multnomah County residents in Plus I in order to avoid offering competing plans in the same market.

2. Environment

The Center for Health Research belonged to a consortium of health providers called "Health Choice" which is a HCFA-sponsored marketing

broker of health services to the elderly. Medicare Plus II is one of several options available from Health Choice and, in Multnomah county, was the only HMO option available during the initial stage of operations. The Director of the Center for Health Research convinced the members of Health Choice to hold back offering the other programs in Multnomah County until Plus II had a chance to become established. This, and the decision not to offer Plus I to Multnomah County residents, effectively reduced the competition facing Plus II.

According to the sales staff, competition in the Portland area increased sharply in mid-1985. Blue Cross introduced an HMO network plan at about this time. This was a relatively inexpensive ($11.00 per month, as against Plus II's $49.00) without drug or vision benefits. Physicians Interhospital Health Plan, an IPA model HMO, also commenced operations in the Portland area. It provides a drug benefit, albeit with a 50% copay, and its premium was $29.00 a month; Pacificare (whose HMO is called Secure Horizons) is also in operation in the region and offers both a zero premium low benefit and a $28.00 a month high benefit plan. Blue Cross supplemental insurance has, of course, always been available- its cost in Portland ranges from $30.00 to $70.000 per month. While this list of competitors is not exhaustive, Medicare Plus II does offer the most comprehensive coverage to elders in the area.

One of the difficulties that was cited as affecting marketing Plus II was Kaiser's own "saturation" of the market with a zero cost and $18.00 health plan several years prior to the introduction of the S/HMO. However,

enrollment quotas in those plans were met quickly and enrollment closed shortly after their introduction, possibly stranding some people without the opportunity to enroll in a Kaiser pre-paid health plan. Some Kaiser staff speculated that a potential effect of this was to create pent up demand for a pre-paid health plan in the community.

3. Product

Medicare Plus II provides a complete range of benefits similar to those provided at the other sites except that the home care benefit is considerably deeper at $1,000 per month. The monthly premium is $49.00. Kaiser staff contend that the drug benefit is the most highly valued benefit but that people are inclined to join Plus II because they have been Kaiser members in the past and Kaiser is considered a stable and trustworthy organization.

4. Promotion

Kaiser is the most experienced of the sites in developing marketing strategy targeted to the elderly. In the first six months of promoting Plus I, 6,000 elders were enrolled. Television played a major role in generating Plus I members but television was inappropriate for marketing Plus II because of the relatively small size of the market area - Multnomah County. The Director of the Center for Health Research and his assistant were primarily responsible for creating the themes and promotional copy.

Direct mail was virtually the exclusive means for generating interest and enrolling members. Kaiser ran one newspaper ad with poor results. The

first mailing, on the other hand, produced a 20-25 percent response rate and additional mailings produced response rates of approximately 10 percent. Twenty to 25 percent of all people who responded actually enrolled in Plus II and up to 35 percent of the Kaiser cost contract members who responded to a mailer, enrolled. Kaiser was surprised at the relative ease at enrolling cost contract members. A particularly successful strategy was to include a Plus II promotional piece in the same mailing that informed cost contract members of a price increase. The price of the cost contract rose from $32.00 to $36.00 thus reducing the monthly differential between Plus II and the cost contract from $17.00 to $13.00. Kaiser suspects that the price differential was less important than the attention that the promotional piece received as a result of being included with notice of a price change.

The philosophy of the Center's Director in developing an advertising campaign is to create interest in the S/HMO by conveying two concepts to its audience, protection and simplicity. Kaiser's mailers were developed with the sole purpose of spurring a reader to send in the request for more information. An introductory brochure (called "get your attention brochure") was designed so that someone reading the brochure was given just enough information so that he/she would turn and read the next page. The promotional materials are simple and bright and feature Kaiser Permanente's name prominently and frequently.

II. DISCUSSION

If marketing issues are to be more effectively and systematically addressed in the future we must begin now to try to draw together what we have learned. Admittedly we must do so with restraint. All the "data" we have so far gathered is, in fact, the judgments and impressions of site employees. While theirs are not uninformed judgments neither can they be considered definitive. Moreover the S/HMO demonstration is only taking place in four locations, rendering generalization risky. But, keeping these caveats in mind, we believe that it is helpful to set forth those hypotheses we can. A start, however imperfect, needs to be made; if we wait for certainty the world will pass us by completely. Finally and logically, we urge further and more rigorous research. The factors we postulate may well not be exhaustive and, equally important, the interactions among factors remains unexplored.

We suspect that the interaction of factors is very important because, for example, price, which was considered very important in both Minneapolis and Long Beach and less important in Oregon, was deemed unimportant in Brooklyn. It is possible that the long established reputation of Kaiser in Portland, among other factors, compensates for its high price whereas Elderplan must overcome the firmly established reputation of its primary competitor, New York Blue Cross. Elderplan's low price, compared to that of the Blue Cross' supplemental insurance plans, is not a sufficient inducement to overcome the advantages Blue Cross apparently has, e.g., a known product (supplemental insurance vs. HMO-type coverage), a well known

name, assured continuity (vs. demonstration period of 3 years), etc. Thus, the importance of each of the factors affecting marketing must be examined both more closely, and their interaction with one another. The interactions among factors is complex, largely beyond our present scope but of prime importance.

There is occasional mention of the interaction of factors in our analysis, but otherwise the key marketing factors are discussed as independent variables. This is a function of the preliminary nature of the discussion. At this stage it is more important to seek agreement on the range of relevant factors - their relative importance and interactions must be left for another day. Each of the factors are discussed under one of the four major headings that served to categorize the marketing experiences of the sites in the previous section of this report.

A. PRODUCT

Consumers make decisions regarding purchases by weighing two sets of factors, benefits and costs (both financial and other) against one another. Benefits and costs can be anything from the reputation of the S/HMO and its sponsoring agency(ies) to covered services, price, and the accessibility of services.

1. Benefits

According to most of the S/HMO management the elderly evaluate the S/HMO benefits in terms of their perception of their most pressing needs and their understanding of the reliability and quality of the provider.

a. Benefits and Consumers' Wants

Consumers who need long-term care services may be more likely than relatively healthier elders to enroll in a S/HMO (see chapter on queuing), especially in an environment where there is a significant amount of competition. Some site personnel are concerned that healthy elders are not likely to pay a higher premium for S/HMO coverage if a less expensive alternative is available that provides the same benefits offered by the S/HMO, minus the long-term care.

Elderplan, Seniors Plus, and SCAN reported receiving a large number of applications or at least a large amount of interest from impaired elders. Those applicants who are severely impaired are usually placed on a queue (i.e., they are not enrolled in the S/HMO until enough healthy members are enrolled to balance them off) to avoid skewing the S/HMO's membership with an adverse case mix. Kaiser is the only site that has not experienced an adverse case mix of applicants.

It follows that, for most of the elderly population the long-term care benefit does not appear to be a strong selling point. In the highly competitive Long Beach and Minneapolis areas, where the long-term care benefit would be the most logical point for product differentiation, this approach has been tried and has been less than successful. Seniors Plus highlighted the community care benefit as a marketing theme in one of its first promotional campaigns. A newspaper ad displayed a picture of a nurse entering a private home which was captioned, "the newest alternative to a nursing home, your home." The response rate was poor and the long-term care benefit has since taken a back seat in promotional campaigns.

The nursing home component of the long-term care benefit may be producing a negative reaction among the elderly, and Seniors Plus has considered dropping the nursing home benefit altogether. On the one hand, nursing home care may be looked upon as being such a negative experience that people would not want to acknowledge the possibility of ever needing this coverage. On the other hand, those people who are willing to face the possibility of needing nursing home care may realize that a $6,000 to $12,000 annual nursing home benefit would be inadequate. The issue for these people is, "why pay for insurance that offers extremely limited protection?" It is not now known whether better presentation of the advantages of the long-term care features of the S/HMO product might help overcome these difficulties. Some sites are beginning to conceptualize the S/HMO benefits as "extended" rather than long-term care.

While many of the elderly seem not to value the long-term care benefit highly, most sites report that they do value the drug benefit. This is consistent with the view that elders are seeking a health product that meets immediate needs, rather than one that insures against future needs. Of course S/HMOs are also high option HMOs and intend to provide both.

b. Reputation

Joining an HMO of any sort represents a risk. The consumer commits himself to accepting care from a single source and, quite reasonably, the quality and reliability of that provider is important. In most cases the consumer has little personal knowledge about the provider before becoming a member and so community reputation is important. The major exceptions to this arise when members are "converted" from within a health plan. This may occur when members of an existing HMO change from one benefit package

to another (something that is occurring at both Kaiser and Group Health) or when the plan is an IPA and members enter without changing physicians.

Establishing a reputation in the market place is a difficult and time consuming process. Kaiser's established reputation among the elderly in its service area comes as the result of having served approximately 35,000 elders prior to opening their S/HMO and from many years of serving the under 65 population. Group Health, like Kaiser, has a firmly established reputation in Minneapolis, but does not share Kaiser's advantage of having provided health care services to so large an over 65 population.

Elderplan and SCAN were disadvantaged because their names were either not associated with providing health care or not known at all. Elderplan suffers from a near absence of a reputation, it is a newcomer in the health plan business as well as the senior health plan business. To a lesser degree, the same is true of SCAN. The implications of Elderplan's and SCAN's reputations for their marketing strategies are discussed in more detail in the section on promotion.

The importance of "reputation" or "brand name recognition" may be more complex than is realized. In the Brooklyn markets, for example, HMOs have not made significant inroads into Blue Cross' market share, but the growth of TEFRA HMOs has been explosive in Florida. Reputation is a difficult concept to operationalize but is role in people's decision making appears significant and requires further consideration.

2. Costs

Price is a major element in the "cost" of any health plan but it is not the only element. Time, convenience, amenities, etc. have all been shown to

influence consumer behavior. Among S/HMO staff, accessibility of care, choice of physician, "lock-in", and S/HMO demonstration status have all been identified as non-monetary costs of importance.

a. Price

Price was considered by most S/HMO managers as being very important in marketing. Price can be thought of both in absolute and relative terms. The high absolute cost of the S/HMO presumably excludes certain of the elderly as realistic marketing targets. This is recognized, for example, by Kaiser's marketing staff. Relative price is a more complex issue. Primarily the question is relative to what? In Minneapolis the Seniors Plus program faces competition from several high option HMOs, including the Group Health Seniors plan itself. There the differential in cost between the two programs is a matter of concern. When the S/HMO was marketed, through a particular retirees group, at $9.00 more than Group Health Seniors it did very well. On the other hand its present price disadvantage is $15.00 per month. There is a belief that this differential is a real disincentive to enrollment.

In fact, however, we have no clear evidence relating price to "saleability". That some relationship exists appears highly probable but the details remain unknown. General theory would indicate that the impact of price would be very much related to the degree of "product differentiation". The better the reputation of the S/HMO provider the less importance differential price might have. At the same time the more different consumers see the S/HMO to be from other HMOs the less price differences should matter. Here we see a clear indication of the interactions to be found among factors affecting marketing.

b. Choice of Physicians

Changing one's physician was cited as the most significant barrier to joining a S/HMO by nearly every person interviewed at each site. Because people, especially the elderly, generally have a physician they routinely see, this doctor/patient relationship becomes a strong bond. People are simply averse to changing physicians, possibly even if they perceive their current relationship with their physician as unsatisfactory. Management at Elderplan reported that people who do not get along with their physician are still often reluctant to give up the relationship.

According to Kaiser, the vast majority of their approximate 29,000 fee-for-service elder patients are unaware that they are entitled to seek care from a provider other than a Kaiser doctor, making these people exceptionally good candidates for conversion from their cost contract to Medicare Plus II. While Seniors Plus has some of the same opportunities, neither SCAN nor Elderplan have much opportunity to "convert" members.

c. Access

Some site staff reported that location of, or access to, services is a major concern to prospective members. This ought not to be surprising. The siting of facilities is widely understood as a matter of marketing importance. Elderplan reported that it has received its highest response rate to ads from those areas closest to the primary care medical center. Elderplan's site director pointed out that access to care is not always a direct function of distance. People who live on a bus route that serves the primary care center may have better access than people who live closer but must change buses or take a cab, etc. Both Elderplan and Seniors Plus

are considering ways of increasing access to people who live in outlying parts of their service areas.

d. Physician and Hospital Lock-In

The term "lock-in" refers to the requirement that S/HMO members use the S/HMO exclusively for their health care needs. Unauthorized out of plan physician and hospital utilization for non-emergency care may not be reimbursed by the S/HMO. This is a feature of all HMOs and thus is not in essence a S/HMO issue. Nevertheless, it does effect marketing at some S/HMO sites.

One of the site directors estimated that approximately 20 percent of applicants withdraw their application upon hearing an explanation of lock-in over the phone. This 20 percent figure does not include those people who do not apply for membership as a result of understanding lock-in from the promotional materials.

Lock-in has important implications for promotion and for reimbursing sales staff - if the S/HMO employs an incentive program for its salespeople. Several S/HMO managers suggested that salespeople's commissions be conditioned on members' staying enrolled for a period of time to insure that salespeople fully inform prospective members about all the conditions of S/HMO membership.

Hospital lock-in is considered less problematic than physician lock-in but two sites have reportedly lost prospective members because of people's preferences for receiving care at hospitals other than those affiliated with the S/HMOs. This may be better thought of as a reputation issue rather than lock-in per se.

e. Length of the S/HMO Demonstration

Some consumers are reportedly worried about the availability of services after the demonstration period ends. The concern is probably less pronounced in Kaiser's and Group Health's service areas because members of those plans can be assured that some kind of coverage (but possibly not long-term care) will be provided after the demonstration period ends. However, for those people who are joining a S/HMO to insure themselves against personal loss in the event nursing home or home health care is needed in the future, one may ask the question, "Why should I pay a premium now for protection that I won't need until some later date, at which time that protection may not be available?"

The New York and California sites, which had to develop HMOs before creating the S/HMO have the added difficulty of needing to assure potential members that service of any kind will be available after the demonstration period ends. A prospective member at Elderplan said that "this was the biggest concern among everyone out there." Here again this is not really a S/HMO issue but a demonstration issue. It has immediate effects but fewer broad implications.

B. Environment

The trend towards increased competition in the United States health care system may be the biggest surprise factor influencing the S/HMOs' marketing performance. This section describes the effect of increased consumer control because of increased competition and two other environmental factors, each of which has hindered marketing the S/HMO. The other two are, the disincentive for Blue Cross subscribers to switch plans,

and consumers' "knowledge and experience" which might be more accurately labeled "ignorance and inexperience."

1. Increased Competition

The S/HMO, like HMOs and virtually all other health delivery systems in the United States, was conceived and designed in an environment controlled by health experts. This environment is changing. The increasingly competitive environment in health care now places greater decision making in the hands of the consumer.

Academicians at Brandeis conceived the S/HMO to be a superior mechanism for delivering health care to elders, i.e., with the potential to not only be more cost-effective but also provide better care by coordinating people's medical and social needs and insuring their long-term care needs. The problem with this approach to designing a health delivery system in today's health market is that lay people may not be willing to pay for the same care that experts would prescribe, if an alternative offers the potential for their own individual savings. Additionally, the growth of health care plans aimed at the elderly market has given elderly consumers an array of alternatives not fully anticipated during the development of the S/HMO.

In one sense, therefore the S/HMO was designed for an earlier health care environment. In another it was designed for an environment not yet arrived. The S/HMO was meant to provide a model for dealing with the future American need for long-term care. It, therefore, was meant to

noperate in an environment in which the need for, and understanding of, long-term care will be greater than it is now. This is not an eccentric vision of the future, it is shared by all demographers and most health care analysts. Part of the S/HMO's marketing problems therefore, appears to flow from its placement in time: too late to avoid powerful competition and too soon for its competitive advantage to be clearly felt or understood.

2. Consumers' Knowledge and Experience

Consumers' knowledge and experience should be considered regarding Medicare's benefits. Someone would have to understand at least some of Medicare's deficiencies before they would consider buying into any kind of Medicare supplemental health plan, HMO or S/HMO. Furthermore, a consumer must consider these deficiencies important enough to warrant buying supplemental coverage. The tremendous amount of misunderstanding among elderly about the coverage that Medicare provides might be a major marketing barrier for Medicare supplemental health plans. This confusion cannot be considered a permanent state yet the S/HMO cannot, by itself, do much to speed its end.

3. Blue Cross Waiver of Coverage for Pre-existing Conditions

One S/HMO salesperson reported that a significant deterrent to joining the S/HMO for current Blue Cross insurance subscribers is that if one wants to re-join Blue Cross (in the event the demonstration ends), pre-existing conditions will not be covered by Blue Cross until a waiting period of up to 6 months or more elapses. This is a particularly acute problem in New

York where Blue Cross is the only major institution offering health insurance to elders. Blue Cross's policies regarding waiting periods before covering pre-existing conditions have the potential of severely hindering marketing of the S/HMO demonstration. However, this is purely a demonstration effect, a permanent program would render concerns about Blue Cross policies less important.

C. Organization

The marketing of the S/HMO is affected by a number of organizational issues. Based on our conversations with the marketing staffs at each site we have identified 3 organizational factors that may affect marketing:

- The needs and goals of sponsoring agencies;
- The organization(s)' experience in marketing; and
- The HMO model being used (IPA versus staff or group).

Below, is a description of how each of these factors could affect marketing a S/HMO.

1. Goals

Organizational goals must be considered in terms of the interests of the HMO's sponsors as well as those of the S/HMO itself. Anytime a large organization is responsible for implementing a number of different programs, the potential for conflicts arise. Marketing decisions,

personnel decisions, pricing decisions, etc. that may help one product may cause problems for another. In S/HMOs that are sponsored by larger health delivery organizations, the potential for this kind of tension is clearly present.

Certain circumstances can either exasperate or ameliorate these conflicts. If the sponsor is marketing another health product to the elderly population, the S/HMO and the other product may well be in competition. This raises, for the sponsoring organization, a number of quandaries; how to price the products, the administrative approach to marketing and selling the products, etc. If the S/HMO is seen as the more profitable product or the one more easily sold, it may actually benefit from this internal competition. On the other hand, and more commonly, if it is less profitable, relatively hard to sell, and if its long-term prospects are uncertain, it may find itself disadvantaged by decisions made by the sponsor. An intensely competitive environment may also be a factor, in that it will tend to shorten the time horizon of the organizations involved. Because the S/HMO is a new product and its marketing has generally gone slowly, a sponsor under strongly competitive circumstances may need to emphasize a product that will more quickly assure them of a market share of the elderly.

Most of these factors have been considerations in Minneapolis, and in this regard it is probable that the problems that Group Health has had to confront are more typical than those Kaiser has faced. We expect that future sites considering a S/HMO-like product will find their situation more closely resembling Group Health's rather than Kaiser's. This argues for the necessity of systematic and frank discussions regarding how the

marketing and operation of potentially competing products within a single organization will be handled.

At SCAN and Elderplan, these issues of internal tensions regarding goals either do not arise or are of lesser importance to marketing. In terms of the flexibility this allows the S/HMO program and its marketing strategies, this is clearly an advantage. Of course, as we mention in other sections of this report, Seniors Plus and the Kaiser S/HMO probably gain other advantages from their association with large, well established health delivery systems.

2. Marketing Expertise and Experience

One of the compensations of being a part of a larger health care organization ought to be access to expertise in marketing. (This is in addition to the operational advantages of access to expertise in other aspects of the S/HMO.) However, this theoretical advantage does not appear to have actually been realized. First, marketing to elders is a new and relatively unexplored field. Marketing "experts" in HMOs and advertising companies simply appear to know very little about marketing to elders. This lack of expertise, combined with the initial assumption that the S/HMO would simply "sell itself" on the basis of its superiority over competing products, contributed to inadequate marketing preparation.

An additional problem was the lack of marketing experience of any kind (not just to elders) among the staff at three of the sites. Group Health was just beginning to develop an in-house marketing staff around the time Seniors Plus was becoming operational. Of course, SCAN and Elderplan were new organizations without any established marketing systems.

3. HMO Organizational Model

Several of the sites are considering employing some variation on an IPA model HMO in an attempt to reap the potential benefits of that model. An IPA could be helpful, from a marketing point of view, for two reasons. First, it provides access to the patient pools of a number of physicians and so avoids requiring new members to change physicians in order to join. As the unwillingness to change physicians is considered by most marketers in the S/HMO to be a critical issue, this could be a major advantage. The second potential advantage of the IPA model is that associated physicians can act as unusually effective salespeople. They have both privileged access to potential members and an exceptional ability to influence them. However, all of these advantages depend on the willingness of physicians to actively assist the S/HMO in marketing. This, of course, places a premium on the S/HMO's ability to motivate its physicians and this can be very difficult.

At this time little can be concluded, based on the demonstration's experience, about the real balance between the potential advantages and disadvantages of the IPA model for the S/HMO. The sole IPA model S/HMO suffered from damaged relationships between some of its physicians and the S/HMO. The lessons from that experience may be; 1) involve or at least inform physicians about operational matters that affect them so that they know and/or have input into those decisions; and 2) contract with physicians whose S/HMO patients will constitute a large enough share of their business so as to assure the physicians' responsiveness to the S/HMO's concerns. The latter "lesson" may be a double-edged sword because the physician group may be able to exert pressure on the S/HMO through its

"control" over its patients. Still, given the urgency of enrollment issues, some consideration of the IPA option is occurring at two non-IPA sites.

D. Promotion and Sales

It appears that the sites have placed a great deal of importance on finding the perfect message to convey the S/HMO in a way that will peak interest and then induce people to join. The S/HMOs have tried many themes, mediums, and amounts of advertising. The apparent low correlation between marketing expenditures and membership suggests that factors other than promotional variables are primarily responsible for people enrolling in a S/HMO or not. The promotional "silver bullet" may not exist. This is not to say, however, that promotional themes and other aspects of advertisin and educational strategies are unimportant. If consumers are going to join a S/HMO they need to first learn about it.

The first part of this section discusses the relative merits of different mediums as reported by S/HMO management. The second part describes the S/HMOs' experiences with different messages. The third part describes issues in targeting special sub-populations. The fourth part discusses the importance of selling.

1. Mediums

Mediums for communicating the S/HMO fall into one of two categories: mass media and direct contact.

a. Mass media

Mass media include newspapers, television, radio, billboards, etc. and

differ from direct approaches in that they; 1) are relatively indiscriminate in terms of the audience they reach; 2) do not usually facilitate quick responses to questions of people who are exposed to them; and 3) are limited in the amount of information that can be conveyed. On the plus side, mass media can reach more people more quickly than most direct promotional techniques and convey simple messages persuasively.

Response from newspaper ads has been poor. Newspaper advertising is expensive and the sites have been reducing their reliance on newspaper ads for generating new members.

The size of the service areas of the S/HMOs precluded them from advertising on television. This handicapped the S/HMOs' marketing efforts. In many parts of the country, TEFRA HMOs are conducting large television advertising campaigns with apparent success and they continue to rely heavily on television advertising. Kaiser was successful in generating members for its Medicare Plus I program through television advertising. The effectiveness of radio is still untested.

b. Direct Mediums

Mail has been the S/HMOs' primary means of direct contact and has been responsible for generating most of the prospects. Opinions on the content, formatting, quantity and timing of the materials have varied among the sites but two very similar fliers (one from Kaiser and one from Elderplan which was modeled on Kaiser's) were the most successful in generating responses. Both fliers headlined "Greater Peace of Mind" and contained a very general, brief description of their benefits. They are, bright, simple, and contain no photographs, but do contain large areas of blank space.

Unfortunately, we do not know whether the fliers or some other factor(s) were responsible for the high response rate. SCAN also received its highest response rate from its first mailing, suggesting that most people may respond to a first mailing if they are going to respond at all. Clearly, this area deserves closer examination.

Face-to-face contact between S/HMO personnel and prospective members appears extremely important for both describing the complexities of S/HMO coverage and conveying assurance to consumers that their health care needs will be met by the organization. The results of the first year's experience of marketing have persuaded most of the S/HMOs' marketing staffs to increase emphasis on personally contacting potential members. Kaiser, which was successful selling Medicare Plus I using television and Medicare Plus II with minimal personal contact, is the exception to this trend.

2. Messages

The S/HMO's have tried different types of messages, ranging from scare tactics, to comparisons with competitors' benefits, to vague appeals based on the S/HMO being a good and worthwhile organization. The analytic approach, typified by a comparison of the S/HMO's benefits with its competitions' or, simply a description of the S/HMO's benefits, prevailed at the sites in the early goings. Since then, the many variations and combinations of types of messages that have been tested have not resulted in discernible differences in enrolling members. The "Peace of Mind" fliers that were described on the previous page generated relatively good responses rates but the rate at which those respondents enrolled varied greatly between Kaiser and Elderplan.

3. Targeting Populations

The S/HMOs have experimented in varying amounts with targeting promotional campaigns to specific sub-populations of the elderly. The three major groups that have been identified as targets of promotional campaigns are: elders' children, Medicaid beneficiaries, and employers.

a. Targeting Elders' Children

Among the three groups, elders' children probably received the least amount of attention from S/HMO marketing staffs. Seniors Plus ran a newspaper ad that was directed at elders' children, with poor results. This population appears to be a relatively large and amorphous group and it is difficult to direct media specifically to them. However, it might be useful to continue to seek ways of targeting this group because some marketing staff estimate that a quarter of people contemplating joining the S/HMO consult with their children.

Another reason for experimenting with promotional campaigns to elders' children is that the children may have as much to gain from the S/HMO's benefits as their parents. Community-based care that is covered by the S/HMO could relieve children of some of the worry about how their parents would be cared for in the event they become chronically disabled. It would be useful to learn what concerns children have for their elderly parents. This would help determine a good starting point for designing promotional copy to this group.

b. Medicaid Beneficiaries

The enrollment rate of Medicaid beneficiaries has been even slower than that for private members. A significant problem for the S/HMO is the near impossibility of personally contacting Medicaid beneficiaries. State

welfare offices have usually been relied on for handing out brochures and otherwise serving as sales people. Some states require S/HMO sales people to be trained and certified by the state before they can talk to a Medicaid beneficiary about joining the S/HMO. It is difficult to measure how vigorously S/HMOs have marketed to Medicaid beneficiaries.

Beside the promise of more coordinated care, medicaid beneficiaries probably perceive little or no advantage to joining a S/HMO. Unlike non-Medicaid elders, Medicaid beneficiaries are covered for chronic disabilities and they are free to receive care from any provider that accepts Medicaid. It is understandably difficult for someoneto give up their freedom of choice in exchange for lock-in to a single provider (or provider network) even though the S/HMO provides coordinated care and quite possibly, better quality care than what is currently available to Medicaid beneficiaries.

c. Group Retirement Plans

Although group sales initially were not a high priority with S/HMO management, at least three of the sites recently increased efforts to enroll retiree groups. The S/HMOs have reported limited success because most employers do not offer benefits to their retirees. For those that do, the limited geographic coverage of the S/HMO is sometimes a problem, as are queuing rules.

The S/HMOs that have the most to gain from group sales might be those that operate in the more competitive areas. Marketing costs in competitive areas are very high and individual sales are particularly difficult because of price competition. Employer groups often contribute at least a portion of the premium, which reduces the absolute cost and the dollar differential between health plans, increasing the relative attractiveness

of the S/HMO. If the S/HMOs could offer a way of easing employer groups' difficulty in administering retiree benefits, the S/HMOs would improve their
chances of increasing group sales.

4. Sales

According to some of the S/HMOs, they were initially understaffed in sales because they thought that the S/HMO would "sell itself". It now appears personal contact with a salesperson is generally necessary to get an elder to enroll. SCAN and Elderplan reported that for a time they were not equipped with enough salespeople to convert the responses from their initial promotional campaigns into members. The sites that initially did not differentiate the functions of sales and marketing staff have since decided to do so and have hired additional sales people.

However, as one S/HMO manager points out, adding additional salespeople before there are sufficient numbers of prospects will only decrease morale and increase turnover among sales staff, particularly if they are paid on commission.

D. Summary

This report is intended to identify areas for further consideration regarding marketing the S/HMO. Based on our conversations with key marketing and operations staff at the sites, we have identified the following issues which may influence marketing the S/HMO. The issues are arranged within the four major categories we identified at the beginning of the report: product, environment, organization, promotion and sales.

PRODUCT

1. Price sensitivity in the elder health care market.
2. Frail elders' attraction to the S/HMO.
3. Importance of a drug benefit.
4. Relative value of the long-term care benefit.
5. Importance of access to primary care.
6. Lock-in to the S/HMOs' physician and inpatient services.
7. People's aversion to changing physicians.
8. Role of demonstration status.

ENVIRONMENT

1. The effect of the amount and kinds of competition on the price sensitivity of the elder health plan market.
2. Relative importance of the improved access inherent in an IPA model vs. the loss of control over the plan's physicians.

ORGANIZATION

1. Experience in marketing.
2. Potential conflict of interest incurred by organizations that sponsor health plans that could compete with one another.

MEDIUMS, MESSAGES AND SALES

1. Importance of promotional campaigns relative to product and environmental issues.
2. Relationship of face-to-face selling with mass promotional techniques.
3. Reluctance of employer groups to offer health benefits to their retirees.
4. Efficacy and efficiency of targeting children of elders in promotional campaigns.

CHAPTER II

EFFECTIVENESS OF THE QUEUING MECHANISM

INTRODUCTION

The purpose of this report is to examine the initial experience of the S/HMO sites in using a self-report health screening mechanism (queuing) to control case mix at the time of enrollment into the demonstration. A decision-tree approach which assigns applicants into one of three functional impairment categories (severe, moderate or well) has been implemented at three of the four demonstration sites. New applicants are wait-listed or queued for admission if their responses to two functional impairment questions indicate they would fall into a category in which the site already has its expected enrollment quota. The sites monitor selection bias in order to enroll a cross-section of the local population in terms of impairment, since adverse selection leads to underpayment and positive selection leads to overpayment in a pre-paid capitated health care system.

The queuing report attempts to answer two questions:

1. Has the queuing mechanism assisted the sites in maintaining an enrollment profile which matches their original targets?
2. How well (poorly) has the queuing mechanism worked? Is it reliable? Is it valid?

BACKGROUND

One of the integral features of the S/HMO demonstration is that site sponsors are at financial risk for delivering the full range of acute and chronic care services. They are responsible for serving the membership according to contracted benefits, and, at year's end, to keep any surplus or absorb any loss.

The risk feature in the S/HMO is justified on three counts:

- It directly encourages efficiency in project operations by rewarding service delivery at less than expected costs. The regular fee-for-service system does not encourage providers to manage service delivery. In fact, it does just the opposite by reimbursing providers at "reasonable cost".
- It ties responsibility for cost to the ability to control cost.
- It encourages improved budgeting and planning due to the sponsor's predictable revenue.

Although the risk feature has several strengths, the implementation of full risk in the S/HMO is a challenge for two reasons. The first is that it is difficult to quantify the risk due to many new features to the program. Neither the S/HMO sites nor anyone else have prior experience in delivering capitated acute and long-term care benefits to an elderly population. Secondly, several of the site sponsors are small nonprofit corporations who do not have enough capital resources to gamble on the S/HMO. These two factors led to a risk-sharing agreement with HCFA that puts the S/HMO sites at partial risk in the first two years and at full risk in the third year.

One uncertainty which affects the risk level is selection bias. If those who join the program are more or less "healthy" (that is, more or less costly) than the hypothetical population on whom the program rates are based, the program will experience biased selection. There are two forms

of biased selection: favorable--enrollees are healthier than the underlying elderly population; or unfavorable--enrollees are sicker than the underlying elderly population. With favorable selection the plan will have an opportunity to make a profit; with unfavorable selection, the plan stands to lose money.

Two options considered in the demonstration to avoid the harmful effects of selection bias are being used: underwriting; which adjusts the reimbursement formula according to health related characteristics of members, and queuing; which is a mechanism to control the case mix in the plan.

The purpose of this paper is to examine the use of the queuing mechanism to control selection bias. There are four sections to the paper:

Section I examines the rationale for case mix controls in the S/HMO.

Section II reviews the development of the queuing protocol.

Section III examines the implementation of the queue in the sites and presents qualitative and quantitative analysis of the queuing experience to date.

Section IV presents our conclusions about queuing.

I: RATIONALE FOR CASE MIX CONTROLS IN THE S/HMO

The capitation rate for prepaid plans under Tax Equity Reduction Act (TEFRA) and in the S/HMO demonstration is established on the basis of cost of care for a similar population in the fee-for-service system. If the profile of enrollees in a plan differs from the profile used to develop the capitation rate, the rate will not be fair payment for services. If the enrollees are healthier than the population, the rate will overcompensate the plans for care, while if the enrollees are sicker than the population,

the plan may receive too little reimbursement for care. In either case the rate will lead to inefficiencies because the payment made will not bear the relationship to needs and services expected when the rate was developed.

Avoiding biased selection is important to providers, as well as to the government, since the provider's favorable selection is the payor's unfavorable selection and vice versa.

Premiums are also affected by selection bias. In a prepaid plan, premiums can be established on the basis of community rating or experience rating. If community rating is used, premium levels are averaged across all payors; if experience rating is used to set premium levels the experience of a particular enrollee group sets the premium for that group. If enrollment is skewed to, for example, heavy users of medical care, premiums set under community rating will be the same for all enrollees, even if some enrollees are members of groups which are not heavy utilizers of care. Thus, plans which use community rating may have fewer incentives to market to particular subgroups of the eligible population, while plans which use experience rating could isolate high premium levels among certain enrollees and attempt to increase market share by setting lower premium levels for enrollees who are not high users.

In the S/HMO three distinct components of the premium are paid to the plan:

- One by the Medicare Program
- One by individuals
- One by the Medicaid Program; the Medicaid payments are paid in lieu of the individual premium (see 2 above) for persons who are eligible for Medicaid.

The bulk of the Medicare payment is used to cover the basic Medicare package of services (Parts A and B) offered at each of the S/HMO sites. The additional private premium payments (or, in the case of Medicaid eligible individuals, the Medicaid premium payments) together with savings (if any) from the Medicare contributions, are used to pay for the additional ancillary medical and long-term care services included in the S/HMO benefit package.

If we examine the total premium paid from all sources, the overall approach includes both community and experience rating components. The Medicare component--(discussed in more detail below) is experience rated--the payment level will vary according to the case-mix of enrollees. However the method used for experience rating is an imperfect one that has never been tested. The individual component (i.e., the amount paid by individual members) is community rated, with individuals all paying the same amount, independent of health status.

The Medicaid portion of the premium varies by site: two sites (Minneapolis and Senior Citizens Action Network (SCAN)) receive case-mix adjusted or experience rated premium payments from the Medicaid program, while two sites--Elderplan and Kaiser Permanente receive a fixed premium amount for each Medicaid member. If a Medicaid member exhausts the long-term care benefit in the plan, the Medicaid Program continues to pay the benefit on a fee-for-service basis. It should be pointed out that Kaiser Permanente has no capitated contract with the Oregon Medicaid Program for long-term care benefits.

The purpose of using queuing to control membership in the S/HMO is thus primarily to control the use of non-Medicare services, especially the

long-term care services, for the Medicare population (and for the New York site, for the Medicare- Medicaid population). The long-term care benefit is financed on an insurance basis with a risk pool. The assumption is that there are enough "healthy" members to pay for the cost of long-term care for those who are in need of covered services. Open enrollment would not assure the sites that the ratio of "healthy" to "frail" elders be achieved. A biased case-mix could thus lead to very large losses to the plan.

Protection against losses on the core Medicare benefits is also needed, since (A) the case-mix adjustment used to determine the Medicare component of the premium is imperfect, and (B) the plans expect to use savings on the Medicare side to pay for a part of the extra medical and long-term care benefits.

In the Social HMO selection bias has been a concern from the outset. The current AAPCC formula is being used to set the Medicare premium levels for the project with an adjustment for the higher than average acute care costs of impaired elders. Individuals whose impairments qualify them for nursing home admission using state nursing home certification procedures are classified as "nursing home certifiable" and are assigned a higher Medicare payment level. The current AAPCC formula provides strong incentives to HMOs to enroll the well-elderly because the payment rate is not adjusted by some of the factors (such as disability, prior hospital use, and/or mortality) which are known to be predictors of higher than average acute care use.

However, the long-term care benefits are likely to attract impaired elders who have a greater probability of needing covered services. The

purpose of the queue is to limit enrollment profiles to those used in the original financial projections, thereby spreading the cost of care, especially long-term care, over the normal population.

II DEVELOPMENT OF THE QUEUING PROTOCOL IN THE S/HMO

A. Selection of a self-report questionnaire as the queuing mechanism

Given the need to control the case mix at the point of enrollment, two screening mechanisms were considered: one was health screening based on a physical examination, the second was the self-report questionnaire, which was ultimately adopted. In early discussions with HCFA, the physical examination approach was rejected because it offered too many opportunities to the sites to bias selection in favor of the well elderly. As well, examinations are costly, cumbersome to administer, and would have interfered with the marketing efforts of the sites. The addition of certain questions to the application form appeared to be the most feasible way to sort applicants into case mix categories.

The self-report queuing mechanism was intended to protect the plans from adverse selection; minimize interference with the enrollment process; prevent controlling for enrollee characteristics already adjusted for in capitation funding; reduce the costs and administrative burden associated with the mechanism; and, support research and evaluation activities.

B. Choice of Queuing Items

The use of functional impairment levels as the critical triggers for the queue was based on previous research findings which indicated that use of acute and especially long-term care services was higher among functionally impaired elders than among non-impaired elders (see the Queuing Protocol, Appendix 1).

The selection of specific items to be used in a self-report form at the time of application was based on a number of criteria:

- Items could not be too threatening, e.g., mental status.
- Items could not be too long or confusing.
- Items needed to correlate with probability of use of acute care and long-term care service use (see Appendix 1).
- Items had to be compatible with the research goals of the demonstration.
- Comparable items needed to be available for a sample of elderly at the national and/or local level.

At the conclusion of the selection process, a collaborative effort between Brandeis, the sites and HCFA, one question on mobility and another on the activities of daily living (ADL) used in the National Health Interview Survey were identified as the impairment case mix questions. Copies of these questions are included Appendix 3. These two questions were selected because certain responses on both questions were associated with increased use of acute care resources, and greater probability of long-term care service use. Moreover, national prevalence rates associated with these items were available from the National Health Interview Survey and the Current Medicare Survey.

C. Queuing Procedures

The queuing protocol (Appendix 1) describes the items and the procedures agreed to by the sites for assignment into the case mix categories. The implementation of the queue is quite straightforward. Applicants are assigned to one of three functional status groups using the following decision-making rules:

1) Severely Impaired: One or more ADL limitations and/or the applicant checks the question, "he/she must stay in bed all or most of the time".

2) Moderately Impaired: No ADL limitations. "Needs help of another person or a special aid in getting around" or "has trouble getting around freely".

3) Unimpaired or Mildly Impaired: No ADL or Mobility limitation.

The specific steps involved in implementing the queue at each site are:

1. Data from the queuing questions on the completed application form determine the applicant's impairment category.

2. The category of new applicants is compared to the actual case mix in the plan when they apply. Applicants can be queued if their impairment category places them in a case mix category for which the plan is oversubscribed.

3. Queued applications are accepted on a date-received basis as the case mix categories allow. Applicants are notified whether or not they have been accepted, or have been placed on a "waiting list" until the category becomes open. The notification letter indicates, as appropriate, the date upon which the plan is requesting effective enrollment (if accepted); procedures to be used in filling vacancies (in the case of queued applicants); and, explanation of reason for denial (i.e., no Part B coverage, etc.).

4. If applicants placed on the queue need immediate help, the plan attempts to provide information and referral services.

5. The SCAN and Elderplan sites reserved the option of closing down the waiting list for each quota. Otherwise the waiting lists may become too long due to the potential strength of the adverse selection factor in the market area, or because of the number of existing enrollees who already fall in each quota. In this

case, applicants waiting for these slots will be formally advised that the program is filled temporarily and will be notified at a later date when and how to apply. No site has closed its queue as of this date.

These steps are followed by all of the sites which queue.

The sites set their enrollment goals based on the Health Interview Survey and Current Medicare Survey data adjusted regionally; the goal was to assure a case-mix comparable to that found in the local community served by each S/HMO site. The targeted case mix for each of the sites by Medicare and Medicaid-only segments are presented in Figure 1.

FIGURE 1
ESTIMATES OF REPRESENTATIVE

CASE-MIX FOR MEDICARE AND MEDICAID

Site and Impairment	Medicare only %	Medicare only No	Medicaid only %	Medicaid only No	Total %	Total No
Seniors Plus						
Severe	3.4	109	8.9	58	4.3	167
Moderate	13.6	435	33.7	219	17.0	654
Well	83.0	2656	57.4	373	78.7	3029
Totals	100.0	3200	100.0	650	100.0	3850
Elderplan						
Severe	4.2	134	10.2	86	5.5	220
Moderate	7.7	243	28.2	237	12.0	480
Well	88.1	2783	61.5	517	82.5	3300
Totals	100.0	3160	99.9	840	100.0	4000
Medicare Plus II*						
NHC	5.0	195				
Noncertifiable	95.0	3305				
Totals	100.0	3500				
SCAN Health Plan						
Severe	4.0	128	4.0	32	4.0	160
Moderate	10.0	320	10.0	80	10.0	400
Well	86.0	2752	86.0	688	86.0	3440
Totals	100.0	3200	100.0	800	100.0	4000

*The Medicare Plus II site does not have a capitated rate with the Oregon Medicaid Program for long-term care services.

D. Site Variation in Use of Queue

Three of the four sites chose to implement the queuing mechanism to protect their case mix goals. The Kaiser site (Medicare Plus II) decided to use the queue only if enrollee characteristics began to reflect adverse selection. Queuing will be triggered at Kaiser when it is determined that the percentage of enrollees who qualify as being nursing home certifiable exceeds 7.5 percent of enrollment. The Kaiser site has almost reached its enrollment goals without using the queue, and it is unlikely to implement the queue during the last months of enrollment.

The sites which decided to queue (Elderplan, Seniors Plus, and SCAN Health Plan) felt they were at particular risk for adverse selection. For example, the SCAN Health Plan protocol stated:

> "It (the queue) will help protect SCAN Health Plan, Medicare and MediCal against potential adverse and positive selection, particularly with regard to the costs of the chronic care benefits. Since SCAN Health Plan will be enrolling the individuals and not groups, and will offer long-term care services not presently covered by other insurers or pre-paid health plans, it may be disproportionately attractive to impaired elders. SCAN Health Plan is sponsored by SCAN, which traditionally has served the frail and low income elderly. This may increase the possibilities for adverse selection. Moreover, since SCAN Health Plan is not a pre-existing HMO, it does not have the advantages in recruitment of "well" older persons for shifting over to the new program (conversions), nor does it have known utilization patterns to draw on."

At Elderplan similar reasoning prevailed:

> "This (adverse selection) is a very real concern at Elderplan because the market area population is older (and probably more disabled) than the average national 65 plus population. In addition, Elderplan is sponsored by a provider of care to the frail elderly, which may have an impact on the possibilities for adverse selection. Moreover since Elderplan is not a pre-existing HMO, it does not have the advantages in recruitment of "well" older persons, or elderly of known utilization patterns."

At Seniors Plus, the reasons for queuing had less to do with the characteristics of the market area or the reputation and caseload of the sponsor, and more to do with the basic goals of the demonstration:

"The reasons for desiring a representative case mix at the site included:

a. It is more important to HCFA that a capitation formula designed to pay for the care of a population of sick and well individuals not be applied to a disproportionately healthy group. An enrollment procedure with assurance of a representative case mix is the proper application for the AAPCC.

b. The sponsors of the S/HMO need to have a financially viable relationship between funding and case mix. This means that there must be a sufficient number of unimpaired enrollees so that the "savings" relative to their service will be sufficient to fund the long-term care services for the disabled enrollees.

c. Both UHPC (Brandeis) and HCFA need to have a valid demonstration of the S/HMO concept within a short period of time. If only healthy applicants were accepted, it would take many years until the population exhibited a significant amount of need for the long-term care services that are central to the concept of the S/HMO.

SCAN and Elderplan decided to queue all applicants while Seniors Plus was required by the State of Minnesota not to queue Medicaid recipients. At SCAN and Elderplan, the case mix goals for Medicaid enrollees were set to reflect the expected impairment levels of Medicaid recipients (see Figure 1 above).

At Seniors Plus, the enrollment objective was to enroll a large enough sample of dually-eligible Medicare and Medicaid enrollees to be able to test the effectiveness of the S/HMO's unique delivery system for enrollees at different levels of need. Thus, target levels at Seniors Plus were set separately for institutionalized and non-institutionalized Medicaid

enrollees which did not necessarily reflect their representative proportion of the population. Medicaid enrollees were not to be included in a queuing process but were to be enrolled up to a maximum level of 20 percent of total plan enrollment, regardless of the mix of functional status categories. Thus, the proportions in Figure 1 are only estimates, not enforced targets. This was financially feasible because Medicaid pays a case-mix adjusted rate in Minnesota. Medicare-only enrollees were to have a controlled case mix based on functional status.

In the first year, the sites did not queue applicants by welfare category because there were not enough Medicaid enrollees to warrant a separate tracking system.

Although applicants are queued on the basis of ADL and mobility impairments present at the time of application, the sites actually qualify elders for covered chronic care services on the basis of state nursing home certification criteria. In New York, enrollees must be nursing home certifiable in order to qualify for covered chronic care services, in Minneapolis and Long Beach, enrollees must be nursing home certifiable (NHC) or "at risk" of becoming NHC. SCAN uses the queuing criteria for moderately impaired individuals to determine if an enrollee is "at risk" of becoming NHC. Minneapolis uses clinical judgment to make that determination.

Thus, the sites are basing long-term care eligibility upon a combination of clinical evaluation of need and local (State Medicaid) nursing home eligibility criteria. These, no doubt, correlate with the impairment categories used to queue, but they are not the same. It should be noted that this "slippage" was built into the concept of how queuing was

to be implemented; it was to be an objective process with protection to keep the sites from using the process to health screen. Thus, it was not appropriate to use direct clinical judgment to queue. It is quite legitimate that sites use another set of more detailed clinical criteria to select the individuals who will be offered the services.

III IMPLEMENTATION OF QUEUING

A. Brief Histories of Queuing by Site

The SCAN site implemented a queue for the severely impaired in July, August, and September of 1985 and subsequently waived the queuing categories in October when it enrolled all eligible applicants. However, the decision to accept the severely impaired was based on a month-to month review of case mix and utilization projections at the site. Severely impaired elders were informed when they applied that they may be placed on a waiting list. As of May, 1986, for example, the SCAN site decided to again queue for the severely impaired.

Seniors Plus implemented a waiting list for the severely impaired in August, 1985 and, as of April, 1986, had 49 severely impaired applicants on the list. Over time a total of 64 applicants have been queued, of whom 6 were enrolled. Of the remainder, when contacted by the site, 3 had died, 4 were no longer interested, 2 had entered nursing homes and the rest were still interested in joining the project.

Elderplan has been queuing the severely impaired since April, 1985, just two months into operations of the project. The project originally queued the moderately impaired as well, but the queuing of the moderately

impaired was thought to be unnecessary after it was observed that the vast majority of the moderately impaired were not found eligible for long-term care benefits. As of April, 1986, there were 137 elders on the waiting list; none of those queued have been admitted to the program.

B. Qualitative Analysis of the Queuing Mechanism

From the beginning, the implementation of the queuing process has raised concerns about some aspects of the mechanism. As mentioned above, all of the sites had originally planned to queue the moderately impaired. As early as May, 1985, at the all-sites conference, the sites reported that the definition of "moderately impaired" (indicating any mobility problem short of staying in bed, all or most of the time, checking items 2 through 5 of the mobility question) included elders who were not at risk for long-term care service use because the definition was too broad. For example, the definition grouped together elders who use a cane with those who use a wheelchair, and those who needed the assistance of another person in getting around inside or outside the house and those who "... have trouble in getting around freely". The wording of the question was vague because several questions referenced needing assistance "inside or outside" the house. It appeared that the wording of the questions could lead to a wide range of interpretations by respondents.

The mobility question was based upon survey questions used in the 1972 Health Interview Survey, as modified and included on the Current Medicare Survey. The original form of the question was the following five questions which were all to be answered individually:

Do you:

1) Have to stay in bed all or most of the time.

2) Have to stay at home all or most of the time.

3) Need the help of another person in order to get around inside or outside the house.

4) Need the help of some special aid such as a cane or wheelchair in getting around inside or outside the house.

5) Do not need the help of another person or a special aid but have trouble in getting around freely.

6) Do not have trouble getting around freely.

It was originally found that these items formed a Guttman scale, i.e., that there was a particular order to the yes-no answers to these questions. This was probably the reason the question was reduced to the single question that appeared in the Current Medicare Survey and then was repeated in the Health Status Form (HSF) for the S/HMO. Only one response is appropriate for the question.

The mobility question seems to be very confusing to many applicants and especially so for the severely impaired, even when they have assistance in completing the form. For example, at Elderplan a review of the applications of the queued enrollees, all of whom are severely impaired, found that 36 percent did not complete the question properly. The most common error is to fill in too many responses. It might have been better to have asked each of the questions separately. At the May 1985 all sites conference the Brandeis staff was asked to prepare a report on the relationship between the presence of mobility impairments and the subsequent use of acute and long-term care services. After looking at the data again, the Brandeis staff recommended that the queuing mechanism with

relation to the moderately impaired be implemented as planned. The data indicated that those who have "moderate" mobility impairments are at risk of incurring higher than average acute care costs. A copy of that report is included as Appendix 2.

The SCAN site has reformatted the mobility question application form in order to guide applicants to fill in just one response. Thus far, the new format has worked very well; applicants fill out just one response.

Wait-listing elders with minor mobility impairments such as using a cane or having trouble getting around freely seemed to be too restrictive to the sites. Given the unanticipated difficulties in enrollment, the trade-off between the potential liability of enrolling the moderately impaired and losing the elder as a member did not seem worth it. None of the sites currently queues the moderately impaired.

Another issue raised early on was the absence of a question on mental impairment. Although all of the sites believed that mentally impaired elders would become users of covered long-term care services, it was not felt that a self-report screening mechanism would successfully identify the mentally impaired. This issue is discussed below in Section D.

Two of the sites reported no problems with the definition of the severely impaired. Most applicants at the Elderplan and SCAN sites seem to answer the ADL question with little difficulty. The Minneapolis site found that some applicants do not answer the ADL question correctly. For example, applicants may report that they do not need help "...because my wife helps me." Or, elders who need stand-by assistance report that they do not need help when, in fact, they do require constant supervision in order to successfully accomplish the activity.

C. Quantitative Analysis of the Queuing Mechanism

The purpose of the analytical section of this report is to examine the validity and reliability of the queuing mechanism as it was implemented during the first year of operations.

1. Reliability

Table 1 displays site case mix at various points along the assessment continuum. The same criteria for measuring impairment, mobility, and ADL questions are used at each of the information-gathering points, i.e., at application, at enrollment, and after enrollment. At application, the queuing questions are included on the application form; at enrollment, they are included on the health status form (HSF), and after enrollment, the comprehensive assessment form (CAF) contains the queuing impairment questions. The case mix at the sites on any given day is based on the most recent data; for most enrollees that would be from the health status form, for some enrollees it would be from the CAF, and for the remainder, it would be based on information given on the application.

As seen in Table 1, the three sites which anticipated a problem with adverse selection were correct in that the enrollment profile indicated higher than expected enrollment of severely impaired elders (at SCAN, the site has higher than expected enrollment of moderately and severely impaired elders). At Elderplan and Seniors Plus the enrollment of moderately impaired elders is less than expected.

The portrayal of case mix changes from the time of application through enrollment, and after enrollment. (After enrollment, changes in impairment category are made from information collected during the comprehensive

assessment for those enrollees who receive the assessment.) The overall direction is for the caseload to become more impaired from application to after enrollment, which is to be expected because time has passed and the enrollees have "aged." However, the rate of change revealed in Table 1 is unexpected because in very few cases did more than eight weeks occur between the application to the HSF (about 80 percent of all HSFs are returned within a month of receipt by the enrollees) to the comprehensive assessment (if administered).

Table 1 presents the case mix targets for each of the sites and the case mix at the three assessment points. The point of measurement of case mix is an important choice for project management. For example, at Elderplan, the case mix from the application data indicates that the site does not have a problem with adverse selection and possibly should be taking some of the severely impaired applicants from the queue. However, the post enrollment case mix, which includes information from the HSF and the CAF, indicates that the site is actually slightly overenrolled with severely impaired elders. Adding elders from the queue would increase the proportion of severely impaired and expose the site to financial risk. At Seniors Plus and SCAN, the data are more consistent because they show a problem with adverse selection among the severely and moderately impaired at all points along the assessment continuum.

A closer examination of the changes from the application to the HSF indicates that the majority of changes occur from the well category to moderate and severe categories. There are not many changes given the total number of HSFs at the sites, but the changes are important because they affect the categories of impairment in which the site is at risk (the

moderately and severely impaired). Table 2 presents the changes between the application and the health status form.

TABLE 1: SITE CASE MIX (%) BY TARGETS, SELF-REPORT APPLICATION, HSF AND POST CAF

SITE	CASE MIX TARGETS			APPLICATION			SELF-REPORT HSF			POST CAF*			QUE	QUE N
	W	M	S	W	M	S	W	M	S	W	M	S	Y/N	
Elderplan	82.5	12.0	5.0	92.0 (N=1618)	4.6	3.5	88.2 (N=1178)	8.0	3.8	87.4 (N= 1201)	7.3	5.2	Y	136
SCAN	86.0	10.0	4.0	83.9 (N = 1681)	10.1	6.0	80.6 (N = 1100)	13.4	6.0	80.0 (N = 1454)	14.0	6.0	N**	0
Seniors Plus	78.7	17.0	4.3	85.1 (N=1113)	9.2	5.7	81.5 (N=1100)	11.7	6.7	80.2 (N=1064)	11.5	8.3	Y	49
Med. Plus II	-----	-----	---	-----	----	----	83.2 (N=3590)	11.4	5.4	-----	-----	-----	N/A	N/A

*The POST-CAF case mix reflects the adjustments made in the HSF casemix after some of the enrollees have been CAFED. In other words the post-CAF case mix includes the most recent impairment data for each enrollee: for some members that would be the application, for most it would be the HSF, and for others it would be the CAF. These data were complied for the enrollment up to May 1, 1986.

**SCAN queued the severely impaired in July, August and September, 1985, then admitted all applicants until May, 1986 when the site began to queue the severely impaired.

which affect their day-to-day functioning. Thus while the number of changes may be small, their impact on the sites is dramatic because the direction of the changes is overwhelming toward greater impairment. For example, at the Seniors Plus site those elders who changed their categories made up 36 percent of those who received case management services. It also seems that enrollees may underreport their impairments even after their membership is assured because the post enrollment case mix reveals a greater level of impairment than does case mix taken at enrollment (the health status form). Thus, the self-report mechanism appears to be biased in the direction of undercounting the actual impairment levels among the enrollees.

2. Validity

The second critical question relating to the effectiveness of the queuing mechanism concerns validity, or the extent to which the questions measure future need for long-term care and acute care services. Table 3 presents the distribution of impairment groupings among persons receiving case-management services.

In Table 1 we saw differences in case mix depending on the information-gathering point: at application, at enrollment, or after enrollment. In Table 3 we see that the specification of case mix of those who later came into case management changes considerably after the CAF. For example at the Elderplan site, of all those who later came into case management (N=83) 42.2 percent reported themselves as well on the application, but on the HSF only 15.6 percent reported themselves as well, and after the CAF, none of those elders were considered well in the judgment of the case managers. The SCAN and Seniors Plus sites both serve elders who are NHC and "at risk"

of becoming NHC. At those sites, a significant proportion of all those in case management reported themselves as well on the application (31.4 percent and 41.3 percent respectively); none were considered well by case managers at SCAN, although 5.2 percent were well at Seniors Plus. This table reveals limited validity in the queuing mechanism for that subgroup of elders who later use case management, because at all sites a significant proportion (ranging from 31 to 42 percent) of elders reported themselves as well on the application but later entered case management.

The sites which use broad criteria for eligibility for case management and covered long-term care services (Seniors Plus and SCAN) are serving a large percentage of those who reported themselves as moderate or well on the application form. For those sites, as might be expected, the relationship between impairment category on the application and subsequent use of case management is weaker than it is at Elderplan, which provides case management only to enrollees who are nursing home certifiable in New York State.

On the whole, then, the impairment categories at the point of application are only moderately successful in terms of validity. Of all those who later entered case management, between 30-40 percent reported themselves as well on the application, a surprising finding given the short period of time, in most cases, between the application and the administration of the CAF.

Another indicator of the validity of the categories is the relationship between impairment category at application and the later high cost of long-term care services (>$500 in any one month). Table 4 reveals that at all sites over 30 percent of those who reported themselves as "severe"

TABLE 3: CASE-MIX AT APPLICATION, HSF AND POST CAF AMONG ENROLLEES WHO RECEIVE CASE MANAGEMENT BY SITE

SITE	N	CATEGORY AFTER CAF				CATGORY ON HSF				CATEGORY ON APPLICATION			
		W	M	S	DK	W	M	S	DK	W	M	S	DK
Elderplan	83	0.0	07.2	84.3	08.4	15.6	28.9	49.4	06.2	42.2	16.7	39.7	1.2
SCAN	306*		65.4	34.6		07.8	50.9	27.8	13.8	31.4	37.5	30.1	
Seniors PL	213	5.2	15.2	28.6	48.8	26.7	35.2	28.6	09.5	41.3	32.4	24.9	

*Total of all those who have come into case management who were assessed (cafed)

the application later turned out to be high cost utilizers of covered long-term care services. The proportions are much smaller for the other two categories, but the total numbers of moderate and well enrollees are much higher.

TABLE 4: NUMBER AND PROPORTION OF HIGH COST* LTC USERS BY IMPAIRMENT CATEGORY AT APPLICATION BY SITE

SITE	SEVERE	N (%) that are high cost LTC users	MODERATE	N (%) that are high cost LTC users	WELL	N (%) that are high cost LTC users
Elderplan	56	17 (30.3)	77	1 (1.3)	1667	5 (0.3)
SCAN	101	30 (29.7)	170	9 (5.3)	1410	19 (1.3)
Seniors Pl	64	27 (42.2)	102	11(10.8)	1000	12(1.2)

*Number receiving $500 or more in covered chronic care services in any one month.

When impairment category at application is related to the total number of high cost long-term care utilizers, the queuing mechanism seems to identify the majority of those who will later become high cost users of covered long-term care services. Table 5 displays the impairment category of those who became high cost utilizers as they reported themselves on their applications.

Table 5: IMPAIRMENT CATEGORY AT APPLICATION OF HIGH COST LTC USERS BY SITE

SITE	N	¶SEVERE ¶N (%) of ¶all high ¶utilizers	¶MODERATE ¶N (%) of ¶all high ¶utilizers	¶WELL ¶N (%) of ¶all high ¶utilizers	¶
Elderplan	23	¶17(73.9)	¶1 (4.3)	¶5 (21.7)	¶
SCAN	58	¶30(51.7)	¶9 (15.5)	¶19 (32.8)	¶
Seniors P1	54	¶27(50.0)	¶11(20.3)	¶12 (22.2)	¶

*Number receiving $500 or more in covered chronic care services in any one month

Table 5 offers a measure of accuracy in the queuing mechanism (another was found in Table 3). Over 20 percent of those who become high cost long-term care users reported themselves as well on the application. The mechanism works somewhat better at Elderplan than at the sites which provide services to those "at risk of becoming nursing home certifiable" because Elderplan provides services only to those who are nursing home certifiable.

D. The Queuing Mechanism As A Whole

The unexpected difficulty in enrolling elders into the demonstration at three of the four sites forced management to weigh the value of queuing against enrollment goals. All of the sites which were queuing the severely impaired felt that the queue provided some but not completely adequate protection against the risk of excessive adverse selection and consequently greater than expected utilization of long-term care services. The quantitative analysis supports this conclusion. On the other hand, the sites were acutely aware that each of those elders on the queue represented lost revenue at a point when the site was underenrolled. As mentioned above, all of the sites enroll the moderately impaired even if the case mix indicates that the proportion of moderately impaired is higher than

expected. The SCAN site has enrolled the moderately and severely impaired up though April, 1986.

A second point with regard to enrolling the moderately impaired relates to the increased risk to the sites for higher than average acute care and medical care costs of the moderately impaired for which the site is not compensated under the S/HMO AAPCC. In the AAPCC formula, there is an underwriting factor for extreme disability (the nursing home certifiable indicator). However, there is no factor to compensate the sites for the moderately disabled, although national data indicate that the moderately disabled are higher than average users of acute and medical care services (see analysis in Appendix 2). To the extent that the sites have higher than expected enrollment of the moderately disabled, they may be incurring greater financial risk.

The sites also report that the queuing categories miss certain types of elders who often require long-term care. All of the sites find that the mentally impaired and those who are medically unstable are missed in the queuing questions. In effect these elders are able to enroll in the project while others who happen to have mobility and/or ADL impairments are not.

Another problem is the possibility for misrepresentation of functioning in order to gain admission to the project. All sites reported that they felt that some applicants reported themselves as well on the application but later, on the HSF or the CAF, turned out to be moderately or severely impaired. To the extent that these false positives are able to "jump the queue," the sites are exposed to increased liability. As well, the elders on the queue are required to wait longer and longer in order to be admitted when false positives are enrolled.

Despite these problems, none of those interviewed was able to recommend improvements to the mechanism. It was felt that the addition of questions which might identify the mentally impaired was not possible because the mentally impaired would be unable to accurately answer the question. The most reliable way to screen for the mentally impaired and the medically unstable would be to require prior medical use records which would be a burden on applicants and possibly a detriment to enrollment. One suggestion which was made was to have physical examinations which had been considered during the development of the queuing mechanism and rejected (see above).

The Minneapolis site suggested several changes to the queuing protocol which could be used to identify follow-up phone calls to applicants who might be mentally impaired. Responses to questions about current use of long-term care services, whether the applicant had help in filling out the application form, and a direct question such as "Have you been having memory loss?" could be used to trigger possible mentally impairments among applicants.

At two of the sites (Elderplan and SCAN) the marketing staff now interviews most of the applicants. They could act as a control on underreporting impairments by applicants. On the other hand, it is possible that since the marketing staff work on commissions per enrollee, they may have some incentives to "close their eyes" to underreporting. There was no evidence that the marketing staff were influencing the responses on the applications one way or the other.

IV CONCLUSIONS

This review of the first year of experience with the queuing mechanism in the S/HMO found that the sites understand the purpose of the queuing mechanism and have implemented it as intended. In general, wait-listing applicants whose answers to the queuing questions indicate they are at risk of needing long-term care services has reduced the financial risk to the sites which implemented queuing. All of the sites which intended to queue have some degree of adverse selection, which indicates that the original concerns about adverse selection were justified. The use of the queue enabled at least two of the sites to reduce the proportion of severely impaired elders in the demonstration. Secondly, the sites found that they were able to implement the queue easily. They felt that the mechanism was worth the extra effort although they were unsure of its impact on marketing and enrollment activities. The problems with the wording of the mobility question are unfortunate because they affect the accuracy of the data from that question, but they do not constitute a major barrier to the assignment of a valid impairment category to applicants.

The major drawback to the impairment questions is that applicants who are mentally impaired are often not identified from the mobility and ADL questions. As a result, the sites are inadvertently accepting those elders who later often become users of long-term care and acute care services. The nursing home admissions literature contains evidence that mental impairment is a predictor of nursing home use. However the literature does not contain evidence of reliable questions which would capture information

on the extent of mental impairment using a self-report mechanism. A self-report format is probably not a good way to identify the mentally impaired.

The findings from the quantitative analysis indicate that the specification of total case-mix at application, enrollment (HSF) and after administering the CAF on some enrollees was reasonably stable (Table 1), with the number and direction of changes (Table 2) being small and in the expected direction. However, the impact of each change is important because the direction of the change is typically negative. The enrollee reports more impairment than he/she had on the application.

At this point only the SCAN site has higher than expected enrollment of the moderately impaired. The trade-off between enrolling the moderately impaired against the risk of higher acute case expenses which are not underwritten in the AAPCC is one which each site will have to decide depending on its overall enrollment and financial situation.

Among those who later used case management and covered long-term care services, the specification of impairment levels at the time of application was associated with future use of receiving some form of case management (Table 3), and of becoming a high cost user of covered long-term care services (Table 5). The relatively high proportion of enrollees who reported themselves as well on the application and who later became users of covered long-term care services indicates a tendency for some elders to underreport the extent of their impairments. These elders can be termed "false positives" or people who appeared to be less impaired than they actually were. Some of these elders may be among the mentally impaired that the mobility and ADL questions miss on the application (see above).

Others may be those who misrepresent their impairment levels in order to gain admission to the demonstration. Two of the three sites reported that some elders probably deliberately inflated their functional abilities in order to be accepted into the demonstration.

The false positives create two problems in the system: first, they put the site at financial risk because they are not discovered until after the elder is enrolled. Second, they create inequities among applicants because the elders who report themselves as being impaired on the application are being asked to wait to get into the project--some of those elders will never get into the project (Elderplan has not been able to enroll anyone on the queue: very few have been enrolled at Seniors Plus. Among those who were not admitted at Seniors Plus, some have died or moved into nursing homes).

There is little evidence of "false negatives" or elders who were less impaired than they reported at the time of enrollment (Table 2).

From a policy perspective, if the S/HMO were a national program, a self-report mechanism for screening applicants may not be feasible: elders might quickly realize the implications of their answers on the queuing questions and adjust them accordingly; and secondly, self-report mechanisms by their very nature do not work well for certain subgroups of the elderly (the mentally impaired and the medically unstable).

There are several options for monitoring the enrolled case-mix against expectations. One would be to have an external agency, contracted by the government, similar to PROs, assess the level of impairment of applicants. An external agency would be objective in protecting the interests of the providers and the payors. In fact, it could implement some form of health

screening which would provide accurate information on physical and mental impairments of applicants and monitor the enrollment practices of HMOs.

Chapter 3:

MANAGEMENT INFORMATION SYSTEMS

This chapter of the Final Report describes the planning and implementation of the management information systems (MIS) at each of the four sites of the national S/HMO demonstration. We review the plans for MIS at each of the sites, the progress to date on site MIS implementation, and the MIS issues which have arisen across the demonstration during its first year of operation. In our presentation of site MIS accomplishments, we are describing the site systems as of April, 1986.

BACKGROUND

The importance of a well-designed management information system is very apparent in the early days of a new demonstration program as complex as the S/HMO. For example, the early enrollment experience of three of the four sites has been disappointing (see the marketing chapter of the final report). When enrollment is under projections, revenue is also down. Moreover, it may be that those who enroll first in a project such as the S/HMO are those who are high users of the long-term care benefit, therefore anticipated savings from the "well" elderly may not be available to offset losses among the frail. Information available from the MIS enables project directors to monitor aggregate financial and service delivery operations and to work with department heads to correct problems.

An MIS involves more than the use of computers to generate reports. It is a system which is designed to assist management to operate effectively by providing timely, accurate data on critical areas of performance on a regular basis. In capitated health care programs the critical areas of performance are membership, utilization and cost. The value of the MIS

does not lie in the technical sophistication of its automated components as much as it does in data integrity and the extent to which managers are able to use data from the system to identify areas in which performance is not optimal.

This report has two major sections: Part One describes the plans and progress of the sites in implementing their management information systems during the first year of start-up. Part Two moves the discussion forward to identify performance indicators which can be generated from the MIS database and which summarize project operations. The report begins by setting the MIS issues of the S/HMO projects within the larger context of management information in capitated health programs.

I. SITE MIS DESCRIPTIONS

A. Overview: The Purpose and Objectives of an MIS in Capitated Health Programs

The purposes of a MIS in a health care delivery system are to improve day-to-day operational management and to provide information for strategic planning. Without a well-designed MIS, all levels of operations, from clinical to senior management, work without the data needed to make informed decisions. Moreover, payors find it impossible to evaluate the cost effectiveness of care unless the HMO can provide basic cost and utilization data for groups of enrollees. In the S/HMO project these justifications provided the rationale for a management system which would ensure:

(1) the ability of the S/HMO to provide quality care as evidenced by fiscal soundness, quality assurance protocols, and lack of enrollee grievances; and

(2)the ability to produce measures which describe the S/HMO in relation to other forms of health care, in terms of cost, types and frequency of services provided.

At each of the S/HMO sites, as in most health care delivery systems, the primary objectives of the MIS were:

To support cost containment efforts by providing complete and accurate financial information to all relevant parties.

To provide the data necessary for providers to monitor both the utilization and quality of care delivered.

To improve member service procedures through the ability to respond to appointment scheduling needs, requests for referrals, business office errors, etc.

To optimize cash flow streams and assure accurate and timely payment to providers.

To account for incurred but unreported claims in order to build adequate reserves to meet the obligations of the health plan.

To reduce administrative overhead through better management of staff resources and the elimination of certain manual tasks which may be accomplished through use of the MIS.

To generate required reports, both for state and federal licensing agencies and for internal use by staff.

To facilitate the growth of the project in terms of membership, service area, or number of facilities by having automated systems in place in order to accommodate increased volume of transactions with minimal effort.

In the S/HMO the need to control the use of the long-term care benefit package and to generate data for research and evaluation meant that additional objectives were considered in designing the MIS: the first was to incorporate all of the implications of the expanded benefit package (such as including the AAPCC underwriting factors, and tracking long-term care service utilization by case mix) in the MIS modules, and the second was to include research data needs as an integral part of the planning and design of the MIS. These two issues will be particularly addressed during this report.

B. Foundations of Site Management Information Systems

In HMOs today, automated MIS systems include a number of components which collect and produce reports on major operational functions. A typical list of modules included in MIS packages for HMOs follows:

membership/eligibility
billing
capitation
 physician
 drug
 lab
claims adjudication
 inpatient
 outpatient
 drugs
encounter processing
authorization
 physician referral
 inpatient precertification
benefits
financial planning
marketing planning
explanation of benefits and check writing
accounting
 accounts receivable
 accounts payable
 general ledger
reporting
 management reporting
 general reporting

As the foundation for their automated MIS, the S/HMO sites used available HMO software (either from their sponsor or project partner or available on the software market) which has been adapted to meet the management, research and reporting needs of the project. They supplemented the HMO packages with customized case management modules which were written to meet the requirements of each site's case management department. As part of this report we have prepared site-specific descriptions of the MIS vis a vis typical MIS components of HMOs. These descriptions are found in appendix 4. As can be seen from a review of Attachment 1, each of the sites has implemented or has access to (in the case of Minneapolis and Kaiser) the components of HMO MIS systems.

C. Special Features of the S/HMO and their Impact on MIS

The implementation of S/HMO information systems required significant adaption of regular HMO reporting at every site. The cost and design of the MIS at each of the S/HMO sites reflect a number of factors including sponsorship, financial arrangements, benefit packages and the research and demonstration nature of the demonstration. Each of these factors and their impact on site MIS are discussed below.

1. Sponsorship Influence

Elderplan and SCAN Health Plan Inc. are new organizational entities, Seniors Plus is a joint venture and Medicare Plus II is a demonstration project of the Kaiser Permanente Medical Care Program. The levels of effort involved in the implementation of S/HMO MIS at the sites reflect these organizational arrangements. For example, both the SCAN and the Elderplan MIS were designed and implemented as service delivery was planned and implemented. At these sites, implementation of the demonstration required that the sites develop a full range of systems including financial, enrollment, utilization and cost. At the other two sites, basic HMO systems were purchased from their corporate sponsors. These sites adapted to existing HMO MIS capacity for medical care data and developed project-specific systems for unique needs such as case management, membership and administration. For example, Kaiser and Minneapolis developed systems which re-enter utilization HMO data into the site MIS.

Each of these arrangements led to different MIS issues. For example, at Elderplan, the MIS goal for this year was to implement the MIS components as they were developed by COMTEC, their MIS vendor. Thus far, Elderplan has implemented the enrollment, utilization and cost modules but

still has to bring up the case management and financial modules. At SCAN all of the basic modules are up and the system is being refined as new modules are being considered (such as marketing and departmental performance measures) and existing ones are being debugged. The advantage in starting from the beginning was that these sites could customize the MIS to meet the needs of the S/HMO demonstration. In contrast, the Kaiser and Minneapolis MIS are built from the data which are available from the larger systems operated by the sponsors. Although the cost of MIS is far less in these sites which are able to use the MIS of established HMOs, the lack of flexibility in the larger systems meant that certain data are unavailable or difficult to acquire. For example, at the Kaiser site, because the HMO does not keep ambulatory data on a person-specific basis, the S/HMO will not have complete client-specific utilization records.

2. Financial Impacts on MIS Development

The second factor which affected the MIS decision-making the sites was financial. All of the sites are being reimbursed by HCFA at 100 percent of the AAPCC for all enrollees. Because the plans are paid on the basis of their enrollment, the membership files were one of the first systems which each of the sites developed. At SCAN and Elderplan the membership systems are modifications of HMO software which they purchased, while at Minneapolis and Kaiser the enrollment, disenrollment, and termination files could be added to the membership files already in place in their HMO sponsors. At all sites the MIS enrollment and membership modules were amended to track the NHC status of members. The sites which designed their own MIS had an opportunity to include codes for all of the underwriting factors (age, sex, county of residence, welfare category, institutional and NHC status). For example, the SCAN MIS assigns a plan/group code (based on

the underwriting factors) to each member which allows it to quickly estimate expected revenue when the accretion and deletion data are sent in to HCFA.

The risk arrangements with service providers are a second way in which finances impact the MIS. In sites which subcontract medical care to providers on a capitated basis, per member per month (PMPM) expenditures are known in advance. While the S/HMO project may wish to know actual cost and utilization data because of its impact on the medical care rate in the second year of the project, medical data are not critical performance information during the course of the first year of operations. A site like Elderplan which is at risk for all of the services of the S/HMO has a need to collect accurate and timely acute care utilization and cost data monthly. Therefore, the Elderplan MIS tracks all service delivery by utilization and cost and includes a detailed authorization system which allows it to follow service delivery in any number of ways (by provider, by person, by diagnosis, by treatment, by age and sex, etc.) On the other hand, at the Kaiser site, project administration is at risk for administration, marketing and case management and extended care. Monthly reports at the project level provide detailed information on these areas while data on the medical care aspects of the program are reported in the aggregate from the Kaiser HMO MIS system. For example, detailed medical care data are available only on a sample basis for Medicare Plus II enrollees.

The importance of the organizational and risk arrangements for MIS design were clearly shown when the S/HMO site directors were asked during a series of site interviews to list the key data items that the other sites should be following. In every case the site directors referred back to

the risk arrangements and organizational structure as they considered each site in turn. For example, they all thought that the Elderplan and SCAN sites should be concentrating on medical care utilization while the Kaiser and Senior's Plus sites should be following extended care utilization because their HMO partners could be trusted to manage the medical care side of utilization within the capitation. As well, the newer organizations, Elderplan and SCAN, were perceived to need to manage their case management and administrative costs tightly because start-up costs are large in new operations.

3. Benefits

The expanded services create special needs to track enrollment by impairment status and the factors used to underwrite the AAPCC, and long-term care utilization and cost. In the three sites where enrollment is far below projections, accurate information on successful marketing techniques is vitally important. Because of the danger of biased selection in the project (see Chapter 2), there is a need to track enrollment by case mix.

Another information need which follows from the inclusion of the long-term services in the benefit package is monitoring the utilization of long-term care services. The sponsors are at greater financial risk in this project because they have had no prior experience in offering the long-term care services on a capitated basis. Over-utilization of this benefit could lead to financial losses by the sites. Each of the S/HMO sites tracks relevant long-term care service management data such as number of members receiving long-term care assessments (the CAF), the number who are certified as nursing home eligible according to State criteria (NHC) and utilization of covered long-term care services. As well the need to

track client-specific data on extended care utilization because of the annual cap on the benefit meant that each of the sites had to include a year-to-date costs feature in the case management module.

4. Research

Additionally, the S/HMO sites are part of a national research and demonstration project with a responsibility to collect and store data needed for evaluation and research. Therefore the HMO modules have been amended to reflect the additional informational needs of the demonstration even though the sites are not being reimbursed for the additional cost. For example, the need to keep historical client-specific extended care utilization data required each site to include historical tracking utilities in the case management modules.

The impact of research data requirements at each site has been large. Staff at the Minneapolis site estimate that 80 percent of the MIS activity has been to meet research and evaluation requirements rather than operational purposes. The full array of demonstration costs, including the cost of research, have been included in the private premium. The site reported that those costs created an extra financial burden in the first year of operations.

Our review of the management information system experience in the four S/HMO demonstration sites found that a number of factors influenced MIS development during the first year of operations. Differences in risk arrangements, organizational structure and history, and access to operational HMO MIS components affected the level of effort which had to be expended to implement the MIS for the demonstration. The chart below lays out the factors which we found to affect MIS development and depicts the relationship of the sites to each of them.

FACTORS	SITES			
	Elderplan	SCAN Health	Seniors Plus	Medicare Plus II
Organizational History, Struc	New HMO Corporation	New HMO Corporation	New Joint Venture	Established HMO and Research Cnt
Risk Arrangements	Risk-Based subcontract w affiliated medical grp	Risk-Based subcontract w outside medical grp and hospital	Risk-Based partnership	Within Kaiser
HMO Type	Group	IPA	Staff	Group
Access to operational HMO MIS	No	No	Yes	Yes
Access to Operational Admin MIS	No	No	Yes	Yes
Access to Case Man MIS	No	No	No	No

D. Original Plans and Current Status of MIS Implementation at the Sites.

It is important to keep in mind that in the planning stages of the demonstration, the data requirements for management and evaluation of the S/HMO project were not completely defined. Therefore the sites briefly set forth their MIS goals while being fully aware that the exigencies of operating a national demonstration program with an expanded benefit package might well require that additional or different data items would be added over time. This has been the case at three of the sites the difficulties with marketing the project have led to special marketing modules being developed to support the marketing departments.

In the protocols to HCFA, each site included a section on project data and operating systems. These narratives generally included the sites' responses to known data requests from HCFA and did not include a description of the MIS which would be implemented to collect and store data. The protocols set forth a set of specific data items in seven areas: membership and enrollment, capitation, quality assurance, utilization,

financial and chronic care. The first step in this analysis of S/HMO MIS issues was to establish whether the sites were keeping the data items which the protocols called for. Appendices 5 and 6 contain site-specific descriptions of MIS activities and the status of the systems at each of the sites. A brief discussion of the key areas of site data collection is presented below:

1. Membership and Enrollment

One of the first automated modules developed at each of the sites was the membership system. Each of the sites maintains data needed for the HCFA monthly accretion and deletion process and subsequent payment (previous and current enrollment, accretions, deletions, deaths, other disenrollments, ESRD, institutional and welfare category); monthly membership statistics by welfare category (enrollments, disenrollments, by age, sex, welfare category, new and conversions). Three of the four sites directly submit the enrollment/disenrollment and AAPCC data to HCFA, the Elderplan site is using a service (CompuServe) to transmit enrollment data to HCFA. The Elderplan MIS has the capacity to transmit the membership data directly to HCFA, and the site may decide to do so in the future.

At the three sites which planned to use the queuing mechanism to monitor case mix at the time of enrollment, membership files include the impairment category information which is collected from the application, the Health Status Form (HSF) and the Comprehensive Assessment Form (CAF).

2. Capitation Revenue

The data needed to support the underwriting factors for the S/HMO project (age, sex, county of residence, nursing home category and welfare category) are collected at each site and submitted to HCFA with the membership file (see above). At SCAN, the MIS has been designed to allow the site to estimate its revenue for the S/HMO project because each enrollee has been assigned a group/plan six digit number which allows the Plan to sort the membership by rate cell and to track expected revenue, utilization and cost of care by the rate cells.

3. Quality Assurance

The quality of care received by enrollees in a S/HMO is tracked in the site's MIS. Usually, quality assurance data includes material needed for external quality assurance review (such as by a PSRO), the numerical information generated from the grievance/complaint record keeping system, and narrative reports of the resolution process. Each of the sites collects number of formal complaints and number of formal grievances.

4. Utilization

Utilization information on kind, amount, and duration of acute and long-term care services provides the site with monthly and year-to-date service delivery information. Acute care information is usually classified into hospital inpatient, ambulatory, SNF, and home health categories while the long-term care data items include case management assessments and reassessments, service authorizations, SNF, chronic long-term nursing home care, home health, homemaker, personal care, meals, transportation, personal emergency response, day care, respite care and any other benefit

which may be covered. The utilization data which are required for the quarterly report to HCFA are kept by all four sites. Annually each site will give HCFA a summary of inpatient and outpatient utilization using the categories required in Title XVIII reporting. A year-end claims and referrals report will provide out-of-plan utilization paid for by each of the sites.

5. Financial

The general accounting system contains expenditure data classified according to the chart of accounts. The billing systems provide management with revenue from premiums and co-payments while the claims file can be used to generate information about out-of-plan expenditures (these expenses are summarized in the chart of accounts). From the general accounting system, in the aggregate, S/HMO project management is able to prepare monthly financial reports which track actual monthly and year-to-date revenue and expenditures, compare them to the budget, and produce variance reports. The SCAN site uses a monthly utilization and cost variance report as one of its key management tools. The Elderplan system has the capacity to produce monthly variance reports, and the Kaiser system uses an aggregate monthly variance report for the case management and administrative departments.* SCAN Health Plan and Seniors Plus produce monthly income and expense statements, balance sheets and cash flow reports.

*All KP departments manage against a budget and report variance but it is not possible to separate S/HMO member services from other enrollee services.

An accrual accounting system, which all of the sites have, provides a method of reserving funds for anticipated expenses, however lags in reporting claims for which no prior authorization was received and out of plan utilization can led to cash flow problems.

6. Chronic Care

Each site committed itself to keep an extensive database on 100 percent of chronic care recipients for research purposes (member identification information, institutional status, welfare status, HSF and CAF key items, case management, social support indicators, care plan summaries and levels of care, utilization and financial data for service utilization). At this point the CAF data are not computerized at three of the four sites (these sites have been waiting for common coding schedules and funds to pay for inputting the CAF and RECAF data). All of the sites maintain the hard copies of the assessments.

7. Marketing

The sites are keeping track of numbers and types of marketing techniques. Each of the three sites which is underenrolled plans to develop a marketing module which will assist it to track marketing activity against enrollments (see below).

8. Research

Each of the sites reported that research requirements have added to the demands on the MIS. One of the products under the Brandeis HCFA contract was the preparation of a Data Dictionary which described the data being collected in the demonstration. A copy of the executive summary of the Data Dictionary is included with this report as Appendix 7.

E. MIS Implementation Issues.

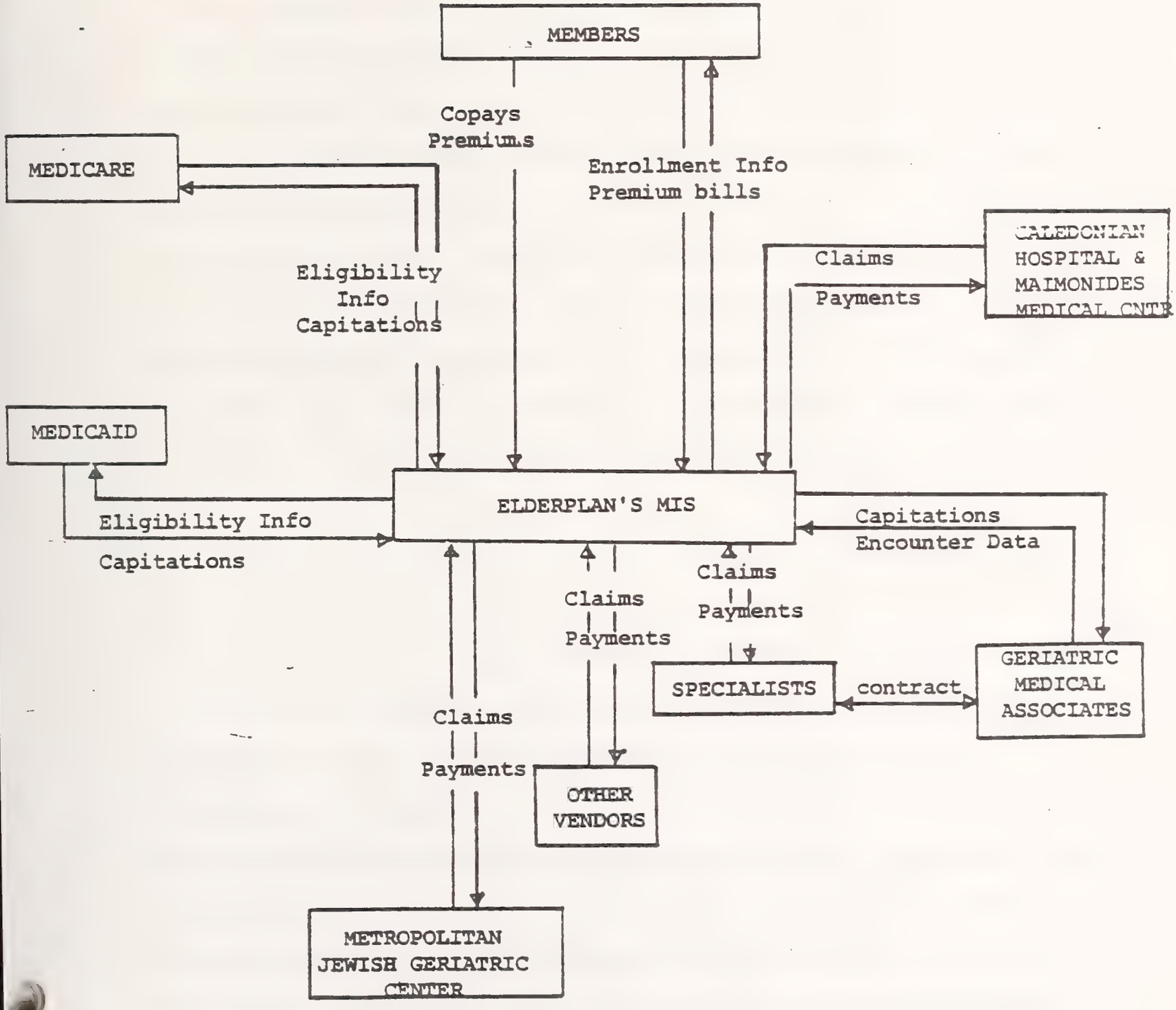
Implementing the MIS at the national demonstration sites has been complicated because of the unique features of the demonstration which have been discussed above. Additionally, the complexity of the demonstration, data quality requirements, and the management styles at the sites have affected the implementation and use of data which are generated. These issues are discussed below.

The complexity of a S/HMO MIS can be seen on the next page. This data flow chart from the Elderplan site depicts the range of data types and the variety of data sources which must interact efficiently to keep project data timely.

Because sites like SCAN and Elderplan were starting all of their service delivery systems at the same time as they were starting their MIS systems, it has taken time to design the appropriate data flow and to train provider agencies to complete forms correctly and to submit them on time. Both of these sites have reported delays in getting authorization and utilization data from providers.

Data quality issues are troublesome as some sites report that providers commonly make mistakes on diagnosis and some of the other data items. Lack of funding to upgrade operational data to research quality has been a financial problem at each of the sites. For example, the evaluation data base requires that the sites keep historical client specific case management and chronic care utilization information which has been expensive to develop. Another example of the extra data requirements due to the research nature of the project has been collection of health status information (from the HSF) on all enrollees on an annual basis throughout

INFORMATION FLOW
IN S/HMO



the duration of the demonstration. At one site, a review of a sample of HSF data found that there were data entry errors due to coding and actual entry mistakes. Across sites it will be important for researchers (including the evaluators) to verify site coding protocols and to obtain documentation on data editing procedures.

As a management tool the MIS will be used more by some managers than by others. Experienced managers may find that they do not need to rely on monthly reports to inform themselves about project operations; their experience with the service delivery system and the organization enables them to identify trouble spots and to know when an unusual occurrence is something to worry about. While some sites have managers who are very experienced in the operation of HMOs, not surprisingly, most of the senior management have had no experience with managing capitated case management and chronic care benefits. In every site the development of data on the performance of the case management unit was a top priority of management.

II: MIS PERFORMANCE INDICATORS

Part I has reviewed the implementation of the MIS at the sites and has particularly concentrated on assessing the progress of the sites in establishing their systems. It has pinpointed the areas in which the MIS was affected by unique design and organizational issues. Essentially, each of the sites spent the first year designing and implementing the core modules of their systems and uploading data. Today the sites are concerned about maximizing the potential of their systems by generating aggregate

reports which depict information in ways which will enable them to effectively manage their programs.

In this part of the MIS report we present areas of management in which timely accurate data can become an important tool in assessing progress and identifying problems.

A. Critical Performance Measures

The state of the art in MIS for HMOs contains the concept of critical performance measures for tracking progress. Because HMOs are paid by known monthly capitation per enrollee, the performance measures in an HMO are based on tracking three critical areas: enrollment, utilization and cost. In the S/HMO there are two additional areas of information needs: the first is the need to track activities related to management of the long-term care benefit package because of lack of prior experience in managing capitated long-term care benefits. Second is the need in three of the four sites to generate better information on the activities of the marketing departments because of unexpectedly low enrollment rates during the first year of operations.

Each of the sites indicated that during the first year the task of MIS staff was to implement the core elements of the MIS modules (membership, acute, medical and extended care utilization and financial). The next step in MIS development would be to define and implement performance indicators in critical areas. There are three critical performance areas in which the sites (to greater or lessor extents depending on the situation at the site with regard to the area under discussion) indicated a need to refine their management reporting: marketing and enrollment; acute and medical care utilization; and case management.

1. Marketing and Enrollment

The MIS membership modules in place at most of the sites today contain enrollee member months, accretion, deletion, termination, reason for termination and rate cell information (age, sex, welfare category, county of residence, institutional and NHC status). Three of the sites also track case mix by the queuing impairment categories. In the three sites which are underenrolled the site directors indicated an interest in using the MIS to assist them to monitor marketing activities. Marketing modules could track such performance indicators as:

- o penetration rate,
- o enrollments by zip code,
- o aggregate inquiry/enrollment rate and rates per sales staff member,
- o activity (mailings, presentations, ads per zip code, census tract, and results such as inquiries and enrollment),
- o marketing cost per inquiry and per enrollee per marketing type

The Minnesota site has made some progress in developing a set of monthly marketing activity reports. These reports track the type of activity (ads, direct mail, and self mailer direct mail) by time period, place, quantity, market, cost, inquiries, enrollments and cost per application).

2. Acute and Medical Care Utilization

All of the sites have implemented their basic acute and medical care utilization modules. Several reported that there are two problems with their medical reporting systems: lags in claims and billings from some providers and lack of detail for managing their medical utilization. For example, some of the sites indicated that they would like monthly reports

on specialty referrals by primary care provider, and service type (hospital, nursing home, medical care, etc.); some would like utilization by welfare category, and performance indicators such as PMPM and per 1000 member statistics for each major service type and variance from the capitation projection. Typical aggregate HMO performance indicators for acute and medical care utilization include:

- o PMPM utilization by service
- o utilization /1000 members per year by service
- o utilization by group (welfare category and case mix)
- o monthly and year-to-date actual to expected utilization, variance

All of the sites indicated that the performance measures listed above were important measures of activity. In some areas certain indicators are more valid measures of activities than others. For example in the area of nursing home (SNF) care, utilization may be more accurately measured by census days than by discharges because a discharge of a long-staying member does not capture the impact on utilization of that member.

One of the most difficult areas for any manager is to know when a series of activities are leading to a trend and when they are a "normal" blip in the system. Experience is the only way to assess the importance of data generated from the MIS.

3. Case Management

Each of the sites developed its case management modules "from scratch". The emphasis in these modules has been on tracking the recipients of chronic care services and controlling authorizations for extended care which was being paid for by the demonstration. All of the site directors

and many of the case management directors indicated that they plan to implement case management performance indicators during the next year. Examples of such indicators include basic statistics on the caseload activity (numbers of CAFs, NHC, visits, number receiving covered services, impairment category, number institutionalized by SNF and ICF, number spending down their benefit, average caseload per worker etc.). Performance indicators could include:

- o average cost of authorizations per case manager by case mix
- o type of case (monitoring only, services, plan covered services) per case manager by case mix
- o service use (homemaker, personal care, certified home health, day care, etc.) per case manager by case mix
- o average cost of care plans by diagnosis
- o case management intakes by source (hospital, doctors, self, family, other agency etc.) by cost per client per month
- o authorizations by new versus continuing cases
- o change in status over time by caseload and case mix
- o case management discharges by reason by impairment category by cost

Taken together one of the purposes of these performance indicators, in addition to providing measures of actual utilization and productivity in the case management department, is to provide a composite sense of quality assurance. Quality assurance in case management and long-term care remains a vague concept from an operational perspective. Most long-term care services are not directed to "curing' or treating any particular condition. Rather, these services compensate for deficits in ability to perform life's daily activities. Moreover, unlike medical care services, they are not focused in their application; for example homemakers are used to meet a variety of needs, as are meals or transportation or personal care workers.

The field is so new that the impact on elders of choosing one service configuration over another is not clear. Therefore there are no clearly defined care-giving standards against which the S/HMO case management units can be measured. The sites felt that the types of indicators listed above can begin to be used to develop an explicit quality assurance and resource allocation protocol which is lacking today.

4. Cost and Utilization Reports

Financial problems can occur in capitated programs because membership is less than expected and/or utilization is greater than expected, and/or service and administrative costs are higher than expected. The first step in assessing the financial situation of the program is to compare actual revenue and expenditures to the budget (monthly and year-to-date). If problems are identified, the MIS can be used to link membership, utilization and cost figures at greater and greater levels of detail to isolate the problem.

B. MIS Performance

At some sites staff raised the issue of the reliability of data produced by the MIS system. For example there can be coding and data entry errors in the raw data. Misleading information can be produced when there are lags in updating information (such as changes in NHC status, impairment level etc.) or in claims producing processing. Now that the sites are operational in many of their major MIS modules, the next task is to reduce errors and misleading information by removing the problem areas that cause them.

A second problem includes the integrity of the software which means ensuring that the programs link the correct files in the correct order. It is difficult for programmers to spot subtle errors in programs which run

and generate plausible results. Errors of this type are typically found by managers whose experience tells them when aggregate statistics are not correct. One of the ongoing management tasks is to validate the data from the MIS against experience and qualitative information from departmental staff.

CONCLUSIONS

This review of the MIS systems at the four sites of the S/HMO demonstration found that the sites were collecting and using the range of acute, medical and long-term care information which they had described in their protocols. The special environment of each site with regard to risk arrangements, sponsorship, institutional history, and access to existing information systems played a large part in the level of effort which had to be expended to implement the MIS. At every site, the inclusion of the long-term care benefits and the research aspects of the demonstration required that extensive modifications had to be made to the HMO MIS systems which are the backbone of all sites systems. These modifications delayed the full implementation of the MIS at all sites.

At this point the sites have written and loaded the software for most of their modules. As they enter the second year of operations they intend to concentrate on four MIS activities. The first is the implementation of data collection and reporting to help them with special problems. For example, the three sites which have been underenrolled expect to use their MIS to assist them to monitor marketing activities, or the sites which are experiencing higher than expected speciality utilization will use their systems to identify particular problem areas.

The second area that the sites will concentrate on is the refinement of reporting aggregate statistics. Reflecting the change from start-up to full operations in the second year of the project, the next step in MIS development is selecting the operating statistics which best "tell the story" about overall and departmental activities. Management in capitated health care programs relies on aggregate statistics which even out fluctuations due to high utilizers in a particular time period by using statistics which reflect utilization and cost over the entire membership base. For example, many utilization statistics are reported as per member per month and year-to-date per member per month. Others are reported as per/1000 members. The next step at several of the sites is to use their automated MIS to generate the most useful performance indicators on a monthly and year-to-date basis.

All sites reported that the appropriate aggregate statistics for managing the case management and long-term care benefits were being developed. Just as each of the sites had to design and write their own software for the case management MIS, the state-of-the art in case management reporting is still unclear about which aggregate statistics are the most helpful.

The third area of concentration for all sites is to refine the operations of the MIS departments. There are several issues that affect the on-going operations of any MIS department. They include ensuring that the database remains valid by overseeing the quality of data entry, verifying that the software is working correctly by performing external audits, reducing lags in data entry, providing training, and documenting the capacity and operation of the system.

Finally, the data needs for the research aspects of the demonstration will be an increasing part of the sites' ongoing MIS activities. As the evaluation of the demonstration enters into active data collection, each of the sites will have more responsibility to generate data for the evaluation. As well, the extent to which the sites begin cross-site research projects increases the need to maintain a uniform database in the demonstration.

APPENDIX I

HCFA Queuing Protocol

Protocol/Procedures for Queuing S/HMO Applicants

I. Targetted Case Mix:

At each site, marketing and enrollment procedures will be designed to enroll a case-mix that is representative of the site's elderly target population in terms of functional impairment levels. Sites have the option to implement the "queuing mechanism," both as a protection against adverse selection and a safeguard (for the funding agency) against favorable selection. Sites may implement this procedure at the initial operations phase, or later, if considered necessary, to balance and maintain the proper case mix.

Each site will base its targetted case mix enrollment in a manner consistent with data used to develop capitation estimates. The targetted case mix will be specified in each site's protocol. The Nagi study (1976) has provided a national data base for estimating impairment levels, which correspond closely to results of responses to questions on mobility level and need for assistance in activities of daily living, as asked in the Health Interview Surveys (1972 and 1977) and the Current Medicare Survey (1977). These are the data bases from which target case mix levels have been developed for Medicare eligible enrollees. Table 1 shows the distribution of impairment levels from the Nagi Survey.

Sites may further subdivide case mix enrollment targets into Medicare only and Medicaid-Medicare categories. Case mix functional impairment levels

Table 1

Functional Disability and Need for Services (Nagi, 1976)

Severely Impaired:	
Needs help with ADL tasks (Bathing, dressing, toileting, eating, transferring)	5%
Moderately Impaired:	
Needs help with IADL tasks (Shopping, housekeeping, meal preparation, laundry)	13%
Mildly Impaired:	
May need help with heavy work	13%
Unimpaired:	
Functionally independent	69%
Total	100%

of Medicaid-eligibles will be based on state Medicaid data (if available) and as described and used in each site's capitation estimates.

II. Implementing the Queuing Process:

Queuing categories, defined by functional impairment levels, will be designated by responses to the mobility and ADL questions (see Section III below) that will be asked on the Social/HMO Application Form and the Health Status Form, both of which are completed as part of the enrollment process.

Sites that choose not to queue would not need to ask the mobility and ADL questions on the Application Form. For sites using the queuing option, steps in the enrollment process are as follows:

1. ALL APPLICANTS; Enroll, or Queue, by Category:

a. The Application Form, including the "queuing category" questions (see III below) is completed by the applicant and returned to the S/HMO.

b. From responses to the "queuing questions" on the Application Form, the applicant is designated as belonging to one of three "queuing categories":

(1) Severely Impaired (needs ADL assistance, or bedbound);

(2) Moderately Impaired (has mobility limitation, but does not need ADL assistance);

(3) Unimpaired or Mildly Impaired (no mobility limitation).

c. The S/HMO plan checks current enrollment levels in each of the above categories. On a first come, first serve basis, each applicant is:

- either enrolled immediately if there is an opening in the appropriate category;
- or placed on a wait list (queue) and advised that he/she will be enrolled as soon as an opening occurs.

d. Each month, as openings occur in each of the "queue categories," waiting applicants are enrolled on a "first come, first serve" basis. If necessary, new applicants to any "filled" categories are placed on the end of the queue and advised accordingly.

2. FOR ENROLLED APPLICANTS, the following process occurs:

a. Client information is sent to HCFA for Medicare verification and accretion.

b. The Health Status Form (HSF) is completed by the client. This mailed questionnaire provides a brief summary of clients' current health status and social situation, and includes the same mobility and ADL questions that are asked on the Application Form.

c. Responses to the HSF may trigger administration of the CAF (see Appendix 2a).

d. From HSF and/or CAF responses the enrollee will be referred, as appropriate, to service providers in the S/HMO system.

e. Responses to the "queuing questions" (ADL and Mobility) from the HSF and the Application Form will be compared. "Queue categories" will be adjusted according to HSF responses and enrollment targets, by category, established for the following month (i.e., if actual enrollment was under or over the target in any "queue category," the following month's target for that category will be set up or down accordingly). By such adjustments, the target setting will attempt to maintain on an ongoing basis the representative case mix levels specified by the site.

3. Monitoring the Process:

a. Case mix enrollment will be closely monitored each month, by HSF "queue categories." Upcoming enrollment targets will be set and the marketing division advised of these case mix targets, so that marketing strategies may be adjusted if and when necessary.

We are assuming that the HSF responses to the "queuing questions" will be more accurate than responses on the Application Form, since the HSF is completed after the applicant is accepted. Biases to underestimate or overestimate impairment level at application and after enrollment are not known, but can be analyzed as part of program monitoring. Including the "queuing questions" on the Application Form allows for setting up the "queue categories" and initially accepting or queuing applicants. If, in the first few months of operations, substantial discrepancies are found between the two sets of responses (from the Application Form and the HSF), these discrepancies will be analyzed and, if necessary, the process reconsidered.

b. Certain responses to the HSF will trigger administration of the Comprehensive Assessment Form (CAF) - (see Appendix 2a: Assessment Instruments and Procedures). For enrollees, to whom the CAF is administered, responses to the "queuing questions" on the Application Form and the HSF will be compared with responses to the same questions on the CAF. Discrepancies in designating "queue categories" from the Application Form, the HSF and the CAF will be noted and reported quarterly to HCFA. The process will be evaluated, and revised if necessary, after 6 months of operations.

c. It is further proposed that in the third quarter of operations, a random sampling of enrollees and queued applicants at all functional levels (including the unimpaired) should be checked with either the CAF or a structured telephone screen to ascertain if

functionally impaired enrollees are being missed in the designation process, or if the designation of queue categories indicates substantial inaccuracy. Results of this sampling will be reported to HCFA by the end of the third quarter.

III. Defining the Queue Categories:

The "queue categories" on all three forms (Application Form, Health Status Form, Comprehensive Assessment Form) are defined as follows:

a. Severely Impaired: Applicant checks that he/she needs the help of another person, some of the time or most of the time, for any one or more of the ADL activities (bathing, dressing, eating, transferring, toileting). And/or the applicant checks that he/she must stay in bed all or most of the time.

b. Moderately Impaired: Applicant checks any of the following responses to the Mobility Index, but does not check that he/she needs the help of another person in any ADL activity:

1) Must stay in the house all or most of the time;

2) Needs the help of another person in getting around inside or outside the house;

3) Needs the help of some special aid, such as a cane or wheelchair, in getting around inside or outside the house;

4) Do not need the help of another person or a special aid, but have trouble in getting around freely.

c. Unimpaired or Mildly Impaired: Does not have trouble getting around freely. (From the Mobility Index)

IV. Rationale and Data Base for Queue Category Definition:

According to the Health Interview Surveys (1972 and 1977) and the Current Medicare Survey (1977), the distribution of the three categories, nationally and by region, are shown in Table 2.

A further breakdown that sites may require in each category is the proportion of Medicaid to Medicare-only enrollees. Since each site is negotiating for different total numbers of Medicaid enrollees, this breakdown will be site-specific and based on the proportion of Medicaid enrollees that is negotiated with the respective state agencies, as well as on the data used for Medicaid capitation estimates.

As the Nagi study (1976) has shown (see Table 1), levels of functional impairment are associated with different levels of need for long-term care services. Table 3 indicates that functional impairment levels are also associated with acute care utilization and Medicare expenditures. This table, based on data from the Current Medicare Survey (1977) was used with a definition of impairement based on the Mobility Index, as follows:

Unimpaired - no limitation in mobility;

Moderately Impaired - has trouble getting around inside or outside neighborhood, or needs assistance from cane. walker or other device;

Severely Impaired bedfast, homebound or needs help of another person to get around.

Table 2

Distribution of Impairment Categories - National and Regional

	Northeast %	N. Central %	South %	West %	National[1] %
"Severe Impairment					
One or more ADL deficit[2]	4- 5	3- 4	5- 6	4- 5	4.7
"Moderate" Impairment					
No ADL deficit					
Need help of another person	13-14	15-16	16-17	13-14	12.9
Need help of special aid					
Have trouble getting around					
Mild or Unimpaired[3]					
No trouble getting around	81-82	80-81	77-78	81-82	82.4

Source:

[1]Health Interview Survey, 1972
[2]Health Interview Survey, 1977
[3]Current Medicare Survey, 1977

Table 3

Hospital Utilization Rates and Per Capita Medicare Expenditures by Disability Level: Community Residents - Persons 67 or Over

	Unimpaired		Moderate		Severe		
	Amount	Relative Amount	Amount	Relative Amount	Amount	Relative Amount	Total Amount
Days of Care/ 100 Persons	308.3	.80	614.7	1.59	821.8	2.12	387.3
Discharges/ 100 Persons	30.8	.83	55.1	1.49	70.8	1.91	37.0
Part A Expenditures Per Capita	$505.17	.75	$1027.82	1.52	$1395.33	2.10	$676.60
Part B Expenditures Per Capita	$200.31	.77	$321.61	1.24	$548.23	2.10	$595.84

Source: 1977 Current Medicare Survey

The above data indicate that functional impairment level is a predictor of utilization and costs of both acute and long-term care services. It is therefore reasonable to implement a queuing process, based on functional impairment level, in order to protect the sites against possible extremely high costs due to adverse selection. Specifying a target case mix enrollment and monitoring case mix levels also ensures that sites will not benefit from unduly favorable selection compared to community impairment levels.

APPENDIX II

M E M O R A N D U M

TO: S/HMO Site Directors and Case Management Directors

FROM: Margaret MacAdam, Lenny Gruenberg, and Walter Leutz

RE: Feedback on Queuing

DATE: June 18, 1985

1.0 Introduction

It appeared to some of the participants at the All Sites Conference that the criteria for queuing the moderately impaired are too broad. In particular, some case management directors felt that elders who use a cane and have no ADL problems are not essentially different from the "well" and perhaps should be directly enrolled. To investigate these concerns, we have done two things: (1) Lenny called each site (except Kaiser which is not queuing) to find our how queuing is being handled and to hear concerns again, (2) Margaret analyzed the national data set from which queuing items and group sizes were obtained as well as the CAF and care plan data developed for the May conference to see the relationship between the moderately impaired elderly and utilization.

The results of these investigations are reported below. Our recommendation is to continue current queuing practices and to study the moderately impaired category, especially those using a cane.

2.0 Current queuing processes at the sites

2.1 The Queuing Protocol

Brandeis's original queuing protocol states that S/HMO applicants are queued based on information provided by them on the application form. Applicants who indicate that they are either bedfast or have one or more ADL problems are queued as severely impaired. Those who indicate that they have any mobility limitation (other than bedfast) and have no ADL impairments are queued as moderately impaired. Those who have no ADL or mobility limitations are queued as well.

2.2 Site practices

Telephone calls to three sites (SCAN, Elderplan, and Minneapolis) who are either currently queuing or are contemplating queuing in the near future revealed that the protocol is being observed. The following summarizes our findings.

A. There is general agreement among the sites in the procedures used for queuing. The procedures are as follows:

(1) Information from the application form is used to classify persons as unimpaired, moderately impaired, or severely impaired.

(2) If information on impairment level is missing, from the application form, the missing information is solicited by telephone at two of the sites (Minneapolis and SCAN). At Elderplan, the application form is returned with a request to complete the missing information.

(3) If impairment level information from the CAF or HSF are in conflict with that found on the application form, the new information is used to update the case-mix figures. In general, the information that is regarded as most reliable is used in assigning a new member to an "impairment level" category.

(4) It is also agreed that new incidents of impairment would lead to changes in the case-mix total which could effect which of the new applicants would be queued.

2.3 Site Criticism of the queuing as it is currently being used.

There is general concern that the "moderate" category does not adequately single out high risk individuals. The three sites each singled out "using a cane" as too general a group to be included.

SCAN staff expressed concern that the impairment categories may not reflect differences in acute care utilization. Early data from SCAN indicates that most hospitalizations are for persons who are unimpaired.

Minneapolis staff feel that "has trouble getting around" is too vague, and may be related to cold winter weather rather than to real impairments. This site also suggests that the "severely impaired" category be expanded to include persons who stay at home most or all of the time --this would make it compatible with the Medicare definition of homebound. The site put forward a possible way of revising the queuing categories by incorporating questions regarding current use of long-term care services into queuing definitions.

3.0 Data analysis

3.1 Data Limitations: There are two major limitations in the data which were analyzed for this report:

A. The question on mobility assistance asks about the use of any aid, from canes to wheelchairs. Therefore, we are not able to separate out those who use just a cane from those who use walkers and wheelchairs. We are not aware of any data on the use of specific aids. On the other hand, those who are using walkers or wheelchair are more likely to need human assistance in getting around and thus would have been coded as having an ADL problem. Therefore, although we can't be sure, it appears that those using an aid who have no ADL impairment are most likely using a cane. We would appreciate any data or experience on this from site staff.

B. The S/HMO data describes elders who were enrolled in the project and were "CAFED." These elders may not be typical of those who are being or will be queued as moderately impaired. For example, Table 1 contains data on the living

arrangements of the "CAFED" elders by impairment level. It shows that 83% of the "CAFED" enrollees who had moderate mobility limitations (no ADL and not bedfast) lived alone.

Table 1: Living Arrangement by Impairment

		SEVERE QUEUE		MODERATE QUEUE			WELL QUEUE	
		ADL or Bedfast	In House Most of Time	Help Getting Around	Aid Getting Around	Trouble Getting Around	Not Limited	Total
Lives Alone	#	14	0	4	9	2	1	30
	%	21.2	0.0	100.0	90.0	66.7	50.0	34.9
With spouse	#	29	0	0	1	1	1	32
	%	43.9	0.0	0.0	10.0	33.3	50.0	37.2
With Child (ren)	#	13	1	0	0	0	0	14
	%	19.7	100.0	0.0	0.0	0.0	0.0	16.3
With Others	#	5	0	0	0	0	0	5
	%	7.6	0.0	0.0	0.0	0.0	0.0	5.8
Foster Care	#	1	0	0	0	0	0	1
	%	1.5	0.0	0.0	0.0	0.0	0.0	1.2
Spouse & Others	#	2	0	0	0	0	0	2
	%	3.0	0.0	0.0	0.0	0.0	0.0	2.3
Spouse & Children	#	2	0	0	0	0	0	2
	%	3.0	0.0	0.0	0.0	0.0	0.0	2.3
Total	#	66	1	4	10	3	2	86
	%	100	100	100	100	100	100	100

This table <u>may</u> tell us that elders who have moderate mobility limitations are being "CAFED" because they have little or no informal support. We just don't know at this point. While these data are interesting, we have no data on either the number or the characteristics of those who were queued as moderately impaired but were not "CAFED."

3.2 Analysis of National Utilization Data.

The 1977 Current Medicare Survey (CMS) is based on interviews of 4643 Medicare beneficiaries nationwide. CMS data were collected on the same 6-point mobility index that is used by the S/HMO project. It was found that acute medical costs were higher than average for those with mobility limitations. Table 2 displays the mean reimbursements for hospital care by mobility level. Table 3 displays the mean reimbursement for Medicare Part B care.

In both tables we are particularly interested in categories 2-5 which span S/HMO "moderate" queuing criteria. It can be seen that the average costs in each category are higher than the average of all beneficiaries and higher than those who are in bed most of the time. Thus, the moderately impaired category does distinguish higher acute care users, which was of course, the rationale for using it in the first place.

Table 2: Average Part A Reimbursements by Mobility Level

		Mean
	Entire Population	502.81
1.	Bed Most of Time	576.01
2.	House Most of Time	1379.40
3.	Help Getting Around	1024.47
4.	Aid Getting Around	794.98
5.	Trouble Getting Around	648.73
6.	Not Limited	407.64

Source: 1977 Current Medicare Survey

Table 3: Average Part B Reimbursements by Mobility Level

		Mean
	Entire Population	226.76
1.	Bed Most of Time	356.52.
2.	House Most of Time	563.89
3.	Help Getting Around	337.97
4.	Aid Getting Around	363.14
5.	Trouble Getting Around	273.71
6.	Not Limited	188.98

Source: 1977 Current Medicare Survey

3.3. Analysis of S/HMO Data

Data from the first 94 cases receiving CAFs at the four sites of the demonstration were examined. Of the 92 cases on which we had mobility data, 4 were bedfast, 3 had no mobility limitations, and 85 had mobility limitations. Of the 85 with mobility limitations, 67 also had one or more ADL problems, leaving 18 with moderate mobility problems and no ADL problems. (Table 4) As might be expected, of the 18 with mobility problems, 11 fell into the category of using an aid such as a cane or a walker. (Table 5)

Table 4: Mobility by ADL

	#	%
Bedfast	4	4.3
Mobility Limitations* plus ADL	67	72.8
Mobility Limitations* no ADL	18	19.6
No Mobility Limitations	3	3.3
Total	92	100.0

Table 5: Distribution of Mobility Limitations*

	#	%
In house most of time	1	5.6
Help getting around	3	16.6
Aid getting around	11	61.1
Trouble getting around	3	16.7
Total	18	100.0

*Categories 2-5 on Mobility Index

We looked at the use of chronic care services to see if those who are "moderately" impaired according to the queuing criteria use services (as indicated from care plan data) at a different rate than those who are severely impaired or not impaired at all. Table 6 presents data on the proportionate use of services by impairment level. It shows that those needing an aid to get around are apparently at least as likely to use LTC services as those with ADL limitations.

Table 6: Service by Impairment

		Severe Queue		Moderate Queue			Well Queue	
		ADL or Bedfast	In House Most of Time	Help Getting Around	Aid Getting Around	Trouble Getting Around	Not Limited	Total
Service Other Than Case Management	#	57	1	0	9	2	2	71
	%	78.1	100.0		81.8	67.0	100.0	
Case Management Only	#	13	0	3	1	0	0	17
	%	17.8		100.0	9.1			
No Service	#	3			1	1		5
	%	4.1			9.1	33.0		
Missing		0	0	0	0	0	0	1
Total	#	73	1	3	11	3	2	94
	%	100	100	100	100	100	100	100

Table 7 presents the service use pattern of the most frequently used services. As might be expected, those who are bedfast or have an ADL problem are more likely to receive assistance with personal care and homemaker while those with mobility problems are more likely to receive homemaker and medical transportation. This table cannot be summed vertically because enrollees may have received more than one service. The percents are the row percentages.

Table 7. Service by Impairment

		Severe Queue	Moderate Queue			Well Queue	
		ADL or Bedfast	In House Most of Time	Help Getting Around	Aid Getting Around	Trouble Getting Around	Not Limited	Total
PT	#	9	1	1	3	0	0	14*
yes	%	64.2	7.1	7.1	21.4	0.0	0.0	100.0
PC	#	14	0	1	0	0	0	15
yes	%	93.3	0.0	6.7	0.0	0.0	0.0	100.0
PC/Home	#	14	0	0	0	0	1	15
	%	93.3	0.0	0.0	0.0	0.0	6.7	100.0
Home Only	#	11	0	0	7	1	1	20
	%	55.0	0.0	0.0	35.0	5.0	5.0	100
Med. Trans.	#	17	1	0	4	2	0	24
	%	70.8	4.2	0.0	16.7	8.3	0.0	100
Monitor	#	23	0	4	1	0	0	17
	%	79.3	3.4	13.8	3.4	0.0	0.0	100

*SCAN allows three P.T. home evaluation visits (charged to the Plan) for all chronic care clients. On-going physical therapy (beyond the three visits) is charged to the chronic care benefit. Most of those getting P.T. in this sample are from SCAN and may have been receiving the home evaluation benefit.

Given the level of service use by elders with moderate or no mobility limitations, an important consideration to the sites is whether these elders are nursing home certifiable. Table 8 reveals that only 50% were NHC, compared to 93% of those in the severely impaired queue category.

Table 8: NHC by Impairment Level

		Severe Queue	Moderate Queue				Well Queue	
		ADL or Bedfast	In House Most of Time	Help Getting Around	Aid Getting Around	Trouble Getting Around	Not Limited	Total
Not NHC	#	5	0	3	5	1	1	15
	%	7.0%	0.0	75.0	45.5	50.0	50.0	16.5
NHC	#	66	1	1	6	1	1	76
	%	93.0%	100.0	25.0	54.5	50.0	50.0	83.5
Total	#	71	1	4	11	2	2	91
	%	100	100	100	100	100	100	100

3.4 Summary of data analysis

The national data presented above indicate that those who use a mobility aid have higher inpatient and physician utilization than average Medicare users. The S/HMO data reveal that the same proportion of those having a mobility limitation receive a service as those in the severe category (67.6%). The services the moderates receive are primarily homemaker, medical transportation and physical therapy while those who are severely impaired receive assistance with personal care. The difference between the two groups could be due to variations in the level

of informal support which were picked up in telephone screens: 93% of those using an aid live alone while only 21.2% of those who are severely impaired lived alone. The moderately impaired elders may be able to live alone but need IADL assistance. The sites are receiving extra chronic care reimbursement for 50% of these moderately impaired members.

4.0 Conclusions and Recommendations

Given that queuing was developed to protect the sites against adverse selection, it seems premature to amend the criteria at this time. There clearly is a subset of the moderately impaired who are significant users of chronic care in the S/HMO, and we have no data on their acute care use. Until we learn more about the cost implications of relaxing the criteria, we do not think it is advisable to change.

Three options seem worth considering , and we would like feedback on them. First, additional insight into this problem would be available if data from the HSF were analyzed to determine what proportion of the moderately impaired were "CAFed," and also what proportion are found to need services.

Second, another option would be for the sites to identify the "CAFED" enrollees by mobility aid (cane, walker, wheelchair) to enable us to analyze service use by type of aid used. Such a study would provide us with information on differential service utilization, if any.

The third option would be to relax the criteria at the request of a site. This would allow a site to enroll members who were more impaired than the queuing protocol allows. While there does not seem to be a reason for Brandeis or HCFA to stop this, we do urge sites to try to distinguish a temporary marketing problem from the larger purpose of queuing. While those using a cane may not appear to be high users, the data may indeed turn out to show that they are.

APPENDIX III

Impairment Questions

IMPAIRMENT QUESTIONS

1. WHICH ONE OF THESE STATEMENTS FITS YOU BEST IN TERMS OF HEALTH? (Read all all statements before answering - check only one box.)

Must stay in bed all or most of the time . . . . . ☐

Must stay in the house all or most of the time . . . . . ☐

Need the help of another person in getting around inside or outside the house . . . . . ☐

Need the help of some special aid, such as a can or wheelchair, in getting around inside or outside the house. . . . . ☐

Do no need the help of another person or some special aid, but have trouble getting around freely . . . . . ☐

Not limited in any of these ways . . . . . ☐

2. BECAUSE OF A DISABILITY OR HEALTH PROBLEM, DO YOU NEED OR RECEIVE HELP FROM ANOTHER PERSON FOR THE FOLLOWING ACTIVITIES? (Check all boxes that apply). Check the "No" box if no help is needed.

	I receive or need help of another person:		
	No	Some of the time	Most of the time
A. Using the toilet in the bathroom . . .	☐	☐	☐
B. Bathing included sponge baths	☐	☐	☐
C. Dressing	☐	☐	☐
D. Eating	☐	☐	☐
E. Getting in/out of bed or chairs . . .	☐	☐	☐

APPENDIX IV

Appendix 4

Site Specific Descriptions of Site MIS Relative to State-of-the-Art HMO MIS Components

SCAN HEALTH PLAN

A. Hardware:	
Location	SHMO site
Make and Model of Major Equipment	Basic 4 8020
Memory	3 mb internal and 188mb disk
Other Users	SHMO, medical group, hospital and pharmacy
Other Equipment Available	2 personal computers
B. Software:	
Major Software Support	HMO package CALL-MED Basic 4 Origin (applications and report generator)
Other	can interface with IBM PC for statistical analysis
C. Personnel:	
FTE	four
Staffing Pattern	MIS Director, Programmer, MIS Operations Specialist,
Secretary/Data Entry	
D. Cost:	
Planning and Design	
Implementation	
On-going Operation	180,000

E. SCAN MIS Systems Description

NAME	CONTENTS	STATUS
membership/eligibility	age, sex, county, welfare status impariment level, NHC; accretions deletions, deaths, other disenrollments, welfare aid code	operational
billing	premium billing-member premium reports to HCFA and State	operational
capitation		
physician	accretions, deletions	operational
inpatient	accretions, deletions	operational
long-term care	no FFS	
claims adjudication		
inpatient	out-of-plan	operational
outpatient	out-of-plan	operational
long-term care	out-of-plan	operational
encounter processing	physician group	operational
authorization		
physician referral		operational
inpatient precertification		operational
long-term care authorization		operational
utilization	see Attachment 3	operational
benefits		operational
financial planning	budget projections	operational
marketing planning		no
queuing		operational
explanation of benefits and check writing		operational
accounting		
accounts receivable		operational
accounts payable		operational
general ledger		operational
reporting		
management reporting	financial, membership	operational
general reporting	HCFA Quarterly	operational
	State Quarterly	operational
other		
research	HSF, Care plan	Authorized
case management	client tracking	services only

2. ELDERPLAN

A. Hardware:

Location	SHMO
Make and Model of Major Equipment	Ultimate/DEC 2000s, IBM PC
Memory	256 K Ultimate, 512 IBM PCXT
Other Users	no
Other Equipment Available	no

B. Software:

Major Software Support	HMO package (Comtec HMO) Versa Form Revelation
Other	

C. Personnel:

FTE	three
Staffing Pattern	MIS Coordinator, Programmer, Data Entry

Cost:

Planning and Design	
Implementation	180,000
On-going Operation	150,000

MIS Systems Description

NAME	CONTENTS	STATUS
membership/eligibility	age, sex, county, welfare status impairment level, NHC; accretions deletions, deaths, other disenrollments	operational
billing		
capitation		
physician		
drug		
lab		
long-term care		
claims adjudication		
inpatient		
outpatient		
drugs		
long-term care		
encounter processing	Physician Group	operational
authorization		
physician referral		operational
inpatient precertification		operational
long-term care	case management	operational
benefits		
financial planning		
marketing planning		
queuing		operational
explanation of benefits and check writing		
accounting		
accounts receivable		
accounts payable		
general ledger		
reporting		
management reporting	Monthly Summaries	operational
general reporting	HCFA Quarterly State Report	operational
other		
research	HSF, CAF, Care plan	HSF and CAF yes
case management	client tracking	

3. MEDICARE PLUS II

A. Hardware:

Location	SHMO and KP
Make and Model of Major Equipment	DEC 2020
Memory	2 mb and disk storagr
Other Users	yes
Other Equipment Available	yes, IBM 4381, GP II, 16 mb, terminal access for SHMO, DEC Rainbows, VAX 750, plus 2nd DEC 2020

B. Software:

Major Software Support	HMO custom
Other	System 1022, SPSS-X, SPSS SCSS, BioMed, MUSE WP

C. Personnel:

FTE	0.30 FTE systems and programming 0.17 FTE data entry and coding 0.20 FTE data coordination user editing and MIS output Total = 0.75 FTE
Staffing Pattern	part-time programming and data entry (only applies to long-term care and research; other assistance from Kaiser-Permanente Information Services Dept.

D. Cost:

Planning and Design	$20/hr salary and fringe, plus 69% indirect cost
Implementation	
On-going Operation	$4200 CPU in 1985 and $7115 CPU in 1986

E. MIS Systems Description

NAME	CONTENTS	STATUS
membership/eligibility	age, sex, county, welfare status NHC; accretions deletions, deaths, other disenrollments (MIPS)	operational
billing	premium billing	operational KPHPO
capitation		
inpatient		operational
physician		operational
drug		operational
lab		operational
long-term care		operational
claims adjudication	OSCAR	operational
inpatient		
outpatient		
drugs		
long-term care		
encounter processing	KPHPO	operational
authorization		operational
physician referral		
long-term care		
benefits		
financial planning	PC based	not operational
marketing planning		
queuing		not applicable
accounting		operational
accounts receivable		
accounts payable		
general ledger		
reporting		
management reporting	membership, utilization, case management, government reimbursement, resource coordinator report, termination report, home health report, hospital report	operational
general reporting	HCFA Quarterly State report	operational
other		
research	HSF, CAF, Care plan	HSF yes, care plan summary
case management	client tracking	yes

4. SENIORS PLUS

A. Hardware:

Location	SHMO and GHI
Make and Model of Major Equipment	Sperry,1100/72, UTS at site
Memory	10 mb and disk storage
Other Users	yes
Other Equipment Avaliable	no

B. Software:

Major Software Support	HMO custom, "Mapper", SPSS-X, Sperry Link WP
Other	

C. Personnel:

FTE	.5 FTE
Staffing Pattern	Programmer Analyst plus assistance from GHI MIS Department

D. Cost:

Planning and Design	$40,000
Implementation	$39,160
On-going Operation	$11,300

E. MIS Systems Description

NAME	CONTENTS	STATUS
membership/eligibility	number, type of coverage, member number, SS number, billing information, name, address, phone, coverage dates, effective dates for Part A and B coverage, sex, date of birth	operational GHI and Seniors Plus
billing	part of membership database	operational
capitation inpatient physician drug lab long-term care	not applicable	Total capitation is calculated manually
claims adjudication inpatient outpatient (outside referral)	ID, vendor ID, admit and discharge dates, service start through dates, claim type and diagnosis code	operational GHI
long-term care		operational Seniors Plus
encounter processing	ID, type of professional providing service, date and type of visit, procedures and diagnoses	operational GHI
authorization physician referral inpatient precertification/ long-term care	person authorizing, service type, amount, vendor, dates	operational GHI (medical) Seniors Plus
utilization	see Attachment 3	operational
financial planning	GHI Product Cost Accounting Encounter Data GHI Budget Information	operational GHI
marketing planning queueing	casemix categories	operational
accounting accounts receivable accounts payable ledger	manual system for Seniors Plus administration	GHI operational (computer general assisted/manual)

reporting		
management reporting	Enrollment Report	computer asst/manual
	Financial report	operational
	Income Statement	operational
	Balance Sheet	operational
	Cash Flow	operational
	GHI Product Cost	operational
	Accounting Income	computer asst/manual
	GHI Service Revenues and Expenses	operational
	LTC Services Utilization Report	operational
general reporting	HCFA Quarterly	operational
other		
research	HSF, CAF, Care plan	no
case management	client tracking	Seniors Plus
	services authorized	Seniors Plus

APPENDIX V

Site Narrative Descriptions

1. SCAN MIS Desciption

The SCAN MIS uses a software package (CALL MED) purchased from Worth, Auger and Associates as the foundation of its MIS. Features of CALL MED have been modified to meet the needs of the SCAN Health Plan. The large number of small changes and the development of a person-specific pharmacy component created delays and added to the expense of the system. Today, however, all of the basic components for the system have been implemented (the claims adjucation data still has to be entered). The case management module has been tailored to meet the needs of the case management department. When the CAF data are entered all of the basic data for the case management system will be entered. SCAN submits its membership data to HCFA directly and is able to save time by doing so.

The SCAN system is flexible and reasonably user-friendly. File items can be linked using common identifiers and monthly and year-to-date reports can be generated by a variety of indicators. Although the Basic Four system is somewhat slower than some others, the flexibility and file handling capability of the system outweighs the lack of speed. A particular effort has been made to generate acute care utilization and cost performance indicators. PMPM and /1000 member statistics are routinely reported. Ad hoc reports can be generated using the executive query function of the report generator without programming effort.

The SCAN MIS uses a departmental data entry system for financial, ambulatory, and case management information. The MIS department does data entry of the enrollment and disenrollment data which are collected by the marketing department. SCAN MIS staff felt that direct entry of data by users would increase timeliness and accuracy of data input and be cheaper than establishing a data entry department. The downside of direct data is

that those goals will only be achieved if users are motivated to enter data as it is generated. The medical group and the hospital have both been slow in entering data. Initially tape-to-tape transfer was envisioned for medical data but that has not been possible. Now a terminal is located at the medical office for entry. Even with the location of a terminal at St. Mary's Hospital, it has been difficult to obtain timely hospital utilization reports. Currently the hospital is sending hard copies to SCAN where they are entered by the MIS data entry staff.

The third area where data entry has been a problem has been in the case management department. The case management module calls for 30-day care plans but case managers have been slow to update case plans which contain no changes from one month to the next.

The financial department is pleased with the system and expects to refine its use of it during the next year.

PROBLEMS

The SCAN system encountered a number of problems in developing its MIS. Delays were incurred (and additional costs) when many small changes were made in the basic HMO package.

Because of pressure on the MIS staff to get all the basic components operational, documentation of some parts of the system is poor, and MIS staff staff acknowledge that they have not done enough to train managers and other staff in the features of the system. They feel, for example, that some departments do not use the system as productively as they might because of the lack of training in how to use it and in some cases because personal managerial styles do not rely on quantitative data for management.

At this point the SCAN MIS is more comprehensive and closer to full implementation than the MIS of the other sites.

MANAGEMENT REPORTING

Many of the managers at SCAN are aware of the potential of the system to assist them to manage their departments. They expect to refine performance indicators in the next year. Currently senior management relies on two reports for overall health plan management. The first is the monthly utilization report which aggregates monthly and year-to-date utilization by service. The report also includes PMPM and /1000 members calculations of service use. Using this report management can compare actual against expected service use and see the variance. The second report report is a revenue and expense report which presents monthly and year-to-date revenue by source. Expenses are reported by line item in the budget. This report allows SCAN management to pinpoint variances from budget and to ask departmental managers for additional information on areas which are overspent.

The case management department uses monthly caseload and service reports to manage its operations. These reports include such items as dot status, CAF dates, year-to-date long-term care expenditures, queue category and NHC.

FUTURE MIS ACTIVITY

Now that the basic modules are in place in the SCAN system, management plans to develop performance indicators for several departments (case management and marketing); to develop indicators of progress for Board members; and to develop simulation programs which can be used for forecasting the expected results of changes in the rates, benefits, or case mix.

2. ELDERPLAN MIS DESCRIPTION

The Elderplan MIS uses Ultimate II hardware, PIK operating system with 256K memory and a capacity of handling up to 16 users. The MIS is built around modifications made to an HMO MIS package sold by COMTEC, Inc. When fully implemented the system will be flexible enough to allow a variety of management purposes to be served. Delays in bringing up the COMTEC system have required Elderplan to supplement the planned functions of COMTEC in two areas: case management and financial. Eventually the COMTEC system will include both of these areas. As well, the press of developing the Elderplan system led management to decide use Compuserv to submit their monthly accretions and deletions to HCFA. THe COMTEC system will allow Elderplan to directly submit their own enrollment data to HCFA. Of the planned COMTEC modules the enrollment, utilization, billing, and claims programs are finished and the data have been entered for them. The case management module is scheduled to be completed next and the financial system is the last major system covered under the COMTEC contract. The Elderplan MIS staff will expand the current marketing information system.

The design of the Elderplan system allows it to generate enrollee-based information on all enrollees on all services across all systems which have common identifiers. When completed the system will be very flexible and relatively easy to use. The MIS staff report that they are very pleased with the system so far.

PROBLEMS

As mentioned above implementation of the COMTEC system is behind schedule. Unanticipated delays were caused by many changes being required in the basic HMO package. In retrospect staff stated that the volume of

changes led to COMTEC to fall behind the original schedule for implementation. Some of the problems reported about the system as it functions today will be solved when the full system is up and running.

The case management data are currently generated from a special system written to track extended care and home health utilization and cost data by service, provider, cost and expenditures to date. This system allows case managers to enter the care plan data which pertain to services which will be paid for by the Plan. When the COMTEC system is implemented it will be more complete in some ways (more data items will be entered) but less useful to the case managers themselves. For example the case management data will not be entered by the case managers and will contain neither complete care plan nor reassessment information. Data entry will be done by data entry staff which may increase the difficulty in keeping the case management database timely.

Utilization reports from the current system are produced on a quarterly basis and do not contain performance measures such as PMPM or /1000 members statistics which would enable management to easily to compare actual to expected utilization. One of the goals for next year is to incorporate performance measures in a monthly utilization reporting system. Changes in utilization reporting which are planned are to track utilization by welfare category (Medicare and Medicaid) and specialty referrals by primary medical care provider. Delays in receiving claims and medical authorization information have been a problem which the site hopes to correct.

Because the system is not completed, special utilities such as producing data tapes require special programming by the MIS staff and thus pull them away from tasks directly related to bringing up the rest of the

system. Some of the paper reports, especially the HCFA quarterly report, are also time consuming. The research aspects of the project are also an extra drain on staff time at this point.

The marketing module tracks inquiries by name address telephone number and date. Lists of interested elders are sent to the marketing staff for follow-up. Improvements in this module would add the capacity to track marketing activities (such as mailings, presentations, ads etc. by zip code and census tract) by enrollment.

MANAGEMENT REPORTING

Membership. The system is able to produce monthly and year to date reports which include new enrollment, terminations, case mix and number on the queue.

Financial. Financial reports include monthly income and expense report, cash flow, trial balance and year to date financial reports by line item.

UTILIZATION

- Acute Care: on a quarterly basis management receives aggregate utilization reports by provider and type of service.
- Extended Care and Case Management: on a monthly basis management receives the extended care report on authorizations by service, number of clients in the case load.

On a quarterly basis the system generates an operating utilization statistics report which compares monthly, and year to date utilization by service and by service per 1000 members with comparisons to the capitation estimates.

FUTURE MIS ACTIVITY

Senior staff reported that there were four areas in the MIS system which they would like to improve in the next year. The first was to incorporate critical performance measures in monthly utilization reports. The second was to move to a departmental budgeting and management system. The third was to develop systems for monitoring administrative expenses. The fourth was to improve the marketing information by developing a marketing tracking system (see above).

3. MEDICARE PLUS II MIS

The Kaiser Center for Health Research is administratively responsible for the Medicare Plus II demonstration project. The MIS system reflects the internal division of responsibilities between the Kaiser HMO (a group model) and the Research Center which operates the marketing, case management and overall administrative activities of the demonstration. At the Research Center, the MIS for the project includes membership data on all enrollees, and client-specific data on all those who are hospitalized and those who are assessed by the case management unit for extended care benefits. The Kaiser HMO MIS does not track ambulatory data on a client-specific basis and the HMO does not produce project-specific service cost reports until the end of the year. It does produce monthly administrative budget and expense reports.

At this point the SHMO MIS contains case management, membership, inpatient authorization and client tracking information. These files are System 1022 data base files maintained on a DEC 2020 at the Research Center. All files can be linked by the member's ID number or other common identifiers such as service codes or provider codes or case manager ID. The case management information is entered by the case managers directly. The SHMO programming and data entry is provided by the Center Computer Operations Department. This project does not have full-time MIS or data processing staff.

The research mission of this site's sponsorship is apparent in the attention to detail about coding protocols and data entry procedures. This site is the only one to date which has taken the time to review a sample of the HSF data for errors and to take steps to ensure the quality of this

data. Some of the CAF data is also being spotchecked for missing information or other errors in completing the assessment.

PROBLEMS

As in the other SHMO sites the broad informational needs of the case management component of the MIS required that more time was spent on developing it than originally planned. The case management system has the capacity to include more information than it does now. For example, all of the care plan services could be entered (now only the plan-covered services are entered). The additional information will be entered when there are resources for entry.

The Kaiser system is not as easy to use as the systems in other sites. Some of the case managers are not sure how to use all of the functions of the system. They say that it is slow and that there are not enough terminals (there are two terminals for six case managers).

The data base at the Kaiser site is the least comprehensive of the four SHMO sites because the Kaiser HMO MIS is not able to track client-specific ambulatory care utilization. Basically this site maintains an extended care database with membership information and hospital utilization.

MANAGEMENT REPORTING

Membership: The system is able to produce monthly enrollment, disenrollment, terminations, reasons for termination, and number of nursing home certifiable enrollees.

Financial: Monthly administration budget and expense reports are produced for project administrative management. Chronic care expenditures are tracked on an monthly and year-to-date basis and compared to budget and expected revenue.

Utilization: Monthly utilization reports indicate the use of services over time; the case management reports indicate the chronic care authorization and utilization.

FUTURE MIS ACTIVITIES

In the next year this site expects to be able to develop critical performance measures for the case management unit and to implement the capacity of the case management system. For example the year-to-date function will be added to the authorization module. Other enhancements planned include new management reporting formats, addition of day surgery identifier to the inpatient file, addition of client specific claims paid, computerizing the CAF and reassessment forms and addition of co-payment information on the Patient Accounting Memo. In addition, the Center will be installing a VAX 8550 and converting the 1022 MIS program to 1032. At that time, the system may undergo significant redesign, including planning for the addition of outpatient ambulatory visits and drug information from newly automated Kaiser HMO systems.

4. SENIORS PLUS MIS DESCRIPTION

The Seniors Plus MIS runs on a Sperry 1100/72 with 10 mb of memory and disk storage. The system was built on existing GHI systems with additions for the case management and long-term care benefits. As of April, 1986, the system had developed as planned. The LTC authorizations, client tracking activities are automated. Extra membership and enrollment information needed for research and evaluation purposes has been developed at Seniors Plus. GHI has implemented a Product Cost System which will provide better estimates of medical utilization and cost than previously available. Standardized reporting formats have been developed for monthly enrollment/disenrollment, Ebenezer service utilization and costs, GHI service costs, administrative cash flow and balance sheet, and total revenue and expenses. These reports use data produced from the automated systems which are complied manually into final reports. The GHI service utilization system has been adapted to develop an automated system for the Quarterly Report.

PROBLEMS

The original plan called for Ebenezer to develop the authorization and tracking of LTC services. However Seniors Plus developed the systems when Ebenezer was unable to do the work as quickly as originally planned. Those systems are now up and running.

The strengths of the Seniors Plus system were also its weakness. GHI already had systems in place for enrollment, billing, claims, authorization tracking, and utilization, and implemented the Product Cost System. Therefore the site did not have to expend the money and effort to implement them. On the other hand, it has been a major task to modify and augment

the GHI systems to meet the special needs of the demonstration. The costs of developing the data needed for non-operational purposes (i.e., the research and evaluation data) have put a burden on the site's budget and are one reason why the enrollee premium is higher than competitively optimal.

The time needed to develop software to generate data for the Quarterly Report has taken longer than expected and delayed automation of certain service coordination functions.

The tracking of enrollment, utilization and cost experience has been an MIS priority during the first year of operations and the site reports that those statistics are now produced satisfactorily.

REPORTING

Membership. The membership system (from the GHI and the Seniors Plus systems) produces monthly accretion, deletion, disenrollment, institutional status, and case mix reports as well as demographic (from the application) and queuing information. The site also produces a monthly marketing activities report which tracks aggregate marketing activities by cost and applications.

Utilization. Monthly acute, medical and long-term care utilization reports contain aggregate utilization and use per 1000 members by month and quarter and year-to-date. Client-specific tracking and case management reports are available.

Financial. Monthly income and expense, balance sheet, cash flow, and product cost accounting income statement and an aggregate financial report are produced monthly.

FUTURE PLANS

Plans for the future include: 1) automating certain functions to cut down on paperwork for service coordinators; 2) improved tracking of service coordinators' assessment/reassessment activity; 3) improved tracking of nursing home stays whether or not the Plan is paying for the care; 4) increased automation of monthly service utilization and cost reports; 5) increased automation of the Quarterly Report; 6) development and implementation of a system to meet the reporting requirements of the Minnesota Medicaid Program.

APPENDIX VI

SUMMARY CHART OF SITE MANAGEMENT DATA

SITE	ENROLLMENT	UTILIZATION	FINANCIAL	LTC	OTHER
	(ENROLL DISENR QUE)	(I-P AMBUL DRUGS OTHER)	(BILLING CLAIMS EXPENSE)	(NHC CAE CP SERV)	(Q.A,MARKETING)
SCAN	a. individual data				
	application data*	I-P :admission date*	BILLING: premium*, co-pays,	NHC status*	QA: disenroll*
	que category*	discharge date*	deductibles,	Client Tracking*	complaints
	welfare category*	DRG*	CLAIMS: out-of-plan*	CAE	grievances
	disenrollment *	treatment*	REVENUE: individual	Care Plan Auth*	disenroll reasons*
	health status*	LOS*	receipts*	Services used*	MARKETING:
		diagnosis*	COST: LTC service costs*	LTC Budget*	application*
		usual and custom charge*			
		AMBUL: date*			
		service type*			
		provider type*			
		DRUGS: drug			
		prescribed,*			
		amount*, duration*			
		OTHER: SNF			
		admission date*			
		discharge date*			
		LOS*, reason*			
		OTHER: HOME HEALTH			
		dates*, service type*			
		OTHER: HEARING AIDS*			
	b. aggregate data				
	application data*	# inpatients*	BILLING: premium*, co-pays,	total CAEs, care	QA:utilizat-
	que category*	# discharges*	deductibles,	plans, NHC,*	ion by category*
	welfare category*	# new admits*	CLAIMS: out of plan*	total service	MARKETING:
	disenrollment*	total inpatient*	REVENUE: by source*	authorized,*	inquiries by type*
	member months*	average LOS*	EXPENSE by category*	total service	total enroll-
	health status*	total days*	Balance sheet*	expended*	ment*
		days PMPM*	Budget*	YTD authorized	
		days PMPY*		YTD expended	
		days/1000 members*		NHC recert schedule	
		days py*		RE-CAE schedule	
		services by total units*		Eligible by casemgr	
		units PMPM*		Chronic care benefit used	
		units PMPY*			
		units 1000 members*			
		units 1000 PY*			

* computerized

	ENROLLMENT (ENROLL DISENR QUE)	UTILIZATION (I-P AMBUL DRUGS OTHER)	FINANCIAL (BILLING CLAIMS EXPENSE)	LTC (NHC CAF CP SERV)	OTHER (Q.A,MARKETING)
MINN	a. individual data application data* que category* welfare category* disenrollment* health status (computerized from application)	I-P: admission date* discharge date* DRG# treatment# LOS* discharge diagnosis# AMBUL: date* service type* provider type* DRUGS: N/A OTHER: SNF admission date* discharge date* (plan-covered only) LOS, reason OTHER: HOME HEALTH dates, service type* OTHER: GLASSES, HEARING AIDS prescribed type*	BILLING: premium, co-pays, deductibles (estimated), CLAIMS: out-of-plan REVENUE: individual receipts (estimated) COST: LTC service costs	NHC status* Client Tracking* CAF Care Plan Services used* LTC Budget * LTC budget balance* Contact type* Service coordinator* Status code* Monitor only* NH admission date* NH discharge date*	QA: disenroll complaints grievances MARKETING: application* CASELOAD STATUS*
	b. aggregate data application data* que case mix* welfare category* disenrollment health status member months* new* conv cost contract* conv other* clinic choice* group totals*	# admissions* # admissions/1000* average LOS* total days* days/1000* days/1000 rehab* days/1000 sd surgery* days/1000 mental health* physician visits* MD visits/1000/yr* total encounters* encounters/1000/yr* o referrals* o referrals/1000/yr* Medicare SNF days* SNF days/1000/yr*	billing: premium, co-pays, claims: all claims paid* revenue: by source* expense by category* income and expense balance sheet cash flow	total CAFs, care plans, NHC,* total service authorized,* total service expended* service by: charge, co-pay, benefits, YTD, YTD LTC balance LTC services total and service/1000/yr	QA:utilization by category Marketing: total inquiries by type

* computerized
# available but not linked SHMO MIS.

	ENROLLMENT (ENROLL DISENR QUE)	UTILIZATION (I-P AMBUL DRUGS OTHER)	FINANCIAL (BILLING CLAIMS EXPENSE)	LTC (NHC CAE CP SERV)	OTHER (Q.A, MARKETING)
ELDER-PLAN	a. individual data application data★ que category★ welfare category★ disenrollment★ health status★	I-P: admission date★ discharge date★ DRG★ treatment★ LOS★ diagnosis★ AMBUL: date★ service type★ provider type★ DRUGS: drug★ prescribed,★ amount★, duration★ OTHER: SNF★ admission date★ discharge date★ LOS★, reason★ OTHER: HOME HEALTH★ dates, service type★ OTHER: GLASSES, HEARING AIDS★ prescribed type★	BILLING: premium★, co-pays, deductibles,★ CLAIMS: out-of-plan REVENUE: individual receipts★ COST: LTC service costs★	NHC status Client Tracking # CAE Care Plan Services used # LTC Budget # LTC budget balance Caseload status Contact type Service coordinator Status code Monitor only NH admission date NH discharge date	QA: disenroll complaints grievances MARKETING: application★
	b. aggregate data (quarterly and year to date) new members by welfare★ category★, age★, sex★ membermonths★ ESRD, ESRD mem. months★ disenrollment★ by welfare, age, sex disenrollment rate★ queue by category★ death by age, sex★ spend-down enrollees by age and sex★	hospital discharges by welfare★ hospital days★ Medicare SNF discharges★ Medicare SNF days★ Medicare nursing visits★ Medicare therapy visits★ Medicare home health aide hrs★ ambulatory encounters★ ER visits★ Medical referral visits★ outpatient Rx★ dental office visits★ dentures dispensed★ audiology visits★ hearing aids dispensed★ optometrist visits★ eyeglasses dispensed★	member months by welfare★ revenue by source★ expenses by category★ services★ case management★ marketing★ administration★ space★ risk reserves# comparison of utilization by capitation estimates by service★ other financial#	new CAEs★ reCAEs NHC, NHC recertifications★ eligible for chronic care★ who are case managed★ not eligible for chronic★ care who are case managed★ chronic care at end of quarter★ received chronic care★ exhaust chronic care★ NHC verifications★ confirmed NHC status★ NHC verifications on non-NHC★ NHC ver confirmed on non-NHC★ hospice care★ institutionalized by age sex★ and welfare category★ SNF discharges★ SNF discharge days★ ICF discharges★ ICF discharge days★	

★ computerized
on PC system, not on SHMO MIS yet

APPENDIX VII

Data Dictionary Executive Summary

The data generated by the four Social/HMO sites offer a unique opportunity to study critical research and operational issues in the management of acute and long-term care for the elderly. At the request of management of HCFA and with the help of the sites, Brandeis staff have prepared the attached Social/HMO Data Dictionary which is a computerized description of site-specific data in the demonstration. In the past, multi-site research has been delayed by the need to develop a cross-site uniform data base. In this project, the Data Dictionary can be used immediately to establish cross-site and site-specific data availability, uniformity and storage. The Introduction to the Data Dictionary describes its contents and provides guidance on use. In this Executive Summary to the Data Dictionary we provide an overview of the contents, availability, uniformity, reliability and storage of the current data base in the Social/HMO. In each of these areas, the discussion includes a brief presentation of progress to date and an analysis on the steps which need to be taken to complete the demonstration uniform data base.

1. The Contents of the Core Data Set

Early in the demonstration planning process, agreement was reached that each site would maintain a core set of standardized, client-specific data in the following areas:

- Socio-demographic;
- Enrollment/disenrollment;
- Health status;
- Functional Status;
- Care Plan Prescription for the chronically impaired;

- Informal care-giving
- Service (medical and long-term care) utilization.

Descriptions of the variables included in each of these areas are included in the Data Dictionary.

While each site has agreed to provide data in these areas, only portions of the data set are currently available in research-quality form. There have been no resources at the site for data collection and preparation. Brandeis staff and the sites have concentrated our efforts on developing uniform assessment instruments and procedures, assessment training, and reliability checking. These steps assure comparability in basic enrollee data across sites.

The following instruments and procedures have already been developed and implemented (forms and procedure descriptions are available from Brandeis):

- A standardized initial Health Status Form (HSF), which is completed by all enrollees;
- A Comprehensive Assessment Form (CAF), which is administered to enrollees who appear to have a greater chance of needing the chronic care benefit;
- Standardized elements in the application form (all enrollees) and in care plan forms (enrollees receiving the chronic care benefit);
- A standardized re-assessment form and procedures;
- A training manual for all case managers in the project; and
- A basic case management/assessment training plan, to be implemented at all sites;
- A system of reliability checking of assessment interviewers across all sites. This includes reliability standards and implementation of reliability checks of all interviewers, both after training and prior to going into the field, and on a regular ongoing basis throughout the demonstration. A data

quality committee has already convened and recommended standards and procedures for assuring data quality (see below).

2. Core Data Set Availability

a. Overview of the Data Collection Process

In general, three sets of data items are necessary to research most aspects of the Social/HMO demonstration:

1. Baseline Information

2. Intervention Information

3. Outcome Information

Baseline information is available on all enrollees at the time of entry into the program. The application form and the Health Status Form (HSF) contain extensive information on a range of socio-demographic, health, functioning, and use of informal and formal services. For impaired elders who are selected for assessment of need for chronic care services, the Comprehensive Assessment Form (CAF) contains an expanded set of variables measuring a range of aspects of health and functioning. These data contain sufficient baseline information to make them comparable with the most recently long-term care demonstration projects such as the Channeling project.

"Intervention" obviously covers a broad area of action, but most of the anticipated research on the Social/HMO will focus on specific areas such as resource allocation and impact of the chronic care benefit package on enrollee outcomes and utilization of services. In these studies, the intervention is the preparation of a care plan and the subsequent delivery of services, whether paid for by the plan or not. Documentation of the case manager's intervention is available in care plan.

"Outcome" information can be measured through the extent of use of acute and long-term care services.

b. Specific Contents of the Core Data Set

The contents of the core data set as it is collected through the forms and processes described above is as follows:

- Socio-demographic and enrollment/disenrollment information. Each of the sites has developed an enrollee-specific membership file containing application and enrollment data such as enrollment date, termination date, queue category (if applicable), insurance coverage, birthdate, sex, marital status. From the HSF, the sites have additional socio-demographic information such as income group, prior employment, education and living arrangement. This information is available on all enrollees and will be updated annual.

- Health status. On all enrollees the application form and the HSF contain a set of baseline self-report health status items. For example, the application form contains information on current hospital and nursing home residency while the HSF collects prior health service use, health status, health conditions, health treatments and medications. One important health variable which is not readily available is diagnosis. Diagnostic and DRG information will have to be abstracted from medical charts and hospital inpatient claim forms.

  For enrollees who receive the CAF, an expanded set of information on health conditions, health treatments, and health habits are collected. CAF information is updated every six months in the reassessment instrument.

- Functional status. For the sites which queue applicants the application form begins to collect basic information on the level of functioning of applicants. Subsequently, the HSF develops a baseline profile of applicants. Subsequently, in the HSF develops a baseline profile of functioning in the areas of activities of daily living (the Katz ADL scale), mobility, the instrumental activities of daily living (the Lawton, PGA IADL scale) and the use of ambulation and functional aids such as walkers, bed pans and the like. There are no questions on mental functioning, such as the need for assistance, frequency and type of the ADL and IADL areas. Mental status is developed on the CAF through the use of the Mental Status Questionnaire (the Kahn, et al., MSQ scale) and a series of questions on the kind, frequency and resiliency of the family and a friend caregiving system.

As well, each site records the nursing home certifiability (NHC) status of enrollees. The NHC is important for reimbursement as well as for receipt of chronic care services. It is important to note that the sites use the NHC criteria of their respective states. Therefore, there is no uniformity across sites in the NHC designation.

- o **Informal care-givers.** The application and the HSF do not collect information on the extent of receipt of care of the informal kind, frequency and resiliency of the family and friend caregiving system.

- o **Care plan resource allocation.** For enrollees who are eligible to receive chronic care services a care plan is developed which records the kind, frequency, duration and estimated cost of service provision. Care plans are updated as needed but at least every month.

- o **Utilization.** There are four kinds of utilization which are collected in the demonstration:

  1. Inpatient hospitalizations. All sites have access to data recorded on the Medicare hospital claims form. Each site collects in its MIS the length of each hospital stay, and the diagnosis (admitting and/or discharge) for all enrollees. Depending on the site, more extensive information (such as charges, ancillary services, etc.) may be available.

  2. Ambulatory. Two of the four sites (SCAN and Elderplan) are collecting extensive client-specific information on ambulatory encounters (type of providers, diagnosis, specialty, treatments, referrals), while the other two sites (Seniors Plus and Medicare Plus II) are not able to provide an extensive database on ambulatory care. Seniors Plus will have client-specific visits by provider type, and Medicare Plus II will have client specific ambulatory data on a sample of SHMO enrollees.

  3. Nursing home care. Length of stay and number of nursing home admissions by enrollee by level of care will be available.

  4. Home and community care. Utilization, payment source, and duration of home and community care services are being collected at all sites.

3. Core Data Uniformity

The data items listed above have been drawn from a series of site forms which capture the key points of enrollee participation in the Social/HMO. Because of funding for site collaboration in the planning and

implementation stages of the project, many forms are similar from site to site. The Health Status Form is a uniform form while the application, assessment, reassessment, and client tracking forms contain uniform sections at every site. More variation is found in the recording of care recording more information than others. Care plan and utilization data are discussed below.

a. Care Plan Data. All sites are collecting specific information on the kind, amount, and duration of services authorized under the chronic care benefit. Some sites go beyond that data to record the kind and amount of out-of-plan formal care, and in-plan care which is not covered chronic care benefit but is charged to the "Medicare" benefit. In order for the care plans across sites to be truly comparable, it will be necessary to record the "true care plan" by funding source by site for each enrollee. There are two problems with the current care plan information: lack of a set of uniform care plan data items to be collected, and second, lack of a uniform format for recording the collected data.

b. Utilization. All sites are collecting basic information on hospital and nursing home admissions and discharges by length of stay and diagnosis. At three of the sites, cross-site ambulatory data for a representative sample of all enrollees and all chronic care beneficiaries will be available for total encounters by provider type. There will be client-specific ambulatory data from a sample of SHMO enrollees of the Kaiser site.

All sites are collecting very specific utilization data for covered long-term care services. Additionally, all sites collect information on client-specific utilization of services paid by the plan which are not part

of the chronic care benefit, such as benefits available under Medicare (SNF and home health). Enrollee-specific data on administrative benefits will require additional data collection at those sites which have them (for example Elderplan provides transportation as an administrative benefit). The availability of non-plan covered chronic care service use is weak at all sites. During the care planning process all sites record the estimated provision of services provided by informal and formal community agencies. Actual use of care from non-plan sources would require extensive new data collection. Three of the four sites record the estimated non-plan service receipt information on the care plan.

4. Core Data Set Reliability

The validity of evaluation and other research studies of the Social/HMO project will depend on a reliable, uniform data base available from all sits. It is generally recognized that findings from most of the prior long-term care demonstrations have been marred by insufficient and unreliable data. The sites have given time and effort to considering data requirements and have agreed on their importance. Brandeis, as project coordinator, is working with specific representatives from each site to supervise the collection of the agreed-upon uniform data set.

A data quality committee, comprising representatives from each of the sites and Brandeis, and which includes both clinical and research perspectives, has developed a protocol for cross-site reliability checking procedures. This demonstration is the first LTC demonstration to use statistical procedures to measure inter-coder reliability. The Consortium implemented the first phase of the reliability training effort in late 1984. Over the last year, the Brandeis clinical specialist has visited all

of the sites to lead three-day workshops in assessment for case management directors and newly hired case managers. Follow up training tapes are currently being prepared. (This work has been supported in part by Brandeis' existing Robert Wood Johnson Foundation grant.)

5. Core Data Set Storage.

The extent of data retrievability at each site varies considerably because of the lack of resources to develop research-quality client-specific files. Because some of the site operating environments are more developed than others, the MIS tasks at each of them are different. Each of the sites has concentrated on data systems needed to support day-to-day operations and management. There have been no new resources for coding, data entry, programming, or preparation of client-specific research files at any site.

As mentioned above, early foundation and HCFA investment in the demonstration enabled the sites to collect the core research data items described above. The next step is to incorporate the raw data into a research database. This step has been made easier because the staff who have been planning and implementing Social/HMO operational management information systems have known about the eventual addition of research data to the MIS.

Although each of the sites has unique MIS issues, there are two data base development tasks which apply to all sites; coding the CAF, reassessment and care plan data, and preparation of research-quality data tapes.

Coding the CAF/Reassessment and Care Plan Data. The Comprehensive Assessment Form, reassessment, and care plan contain extensive information of characteristics of impaired enrollees and service targeting. Each of these forms is a critical element in the availability of a core data set in the demonstration. The demonstration has not had the resources to develop a coding system and data entry plan for this information.

Preparation of Research-Quality Client-Specific Data Tapes. The computer systems at each of the sites (with the exception of the Minnesota site which has computerized very little of its information) have been designed to assist users to manage their workload. Data is entered by users and editing for accuracy is the user's responsibility. Preparation of research quality data tapes at each site requires that more extensive edits be performed in order to insure valid and reliable data.

For day-to-day operations, sites do not need comprehensive client-specific files. With additional resources, each of the sites has the capacity to generate client-specific files. Enrollee identification numbers are attached to many data items in the systems and with funding for research, each of the sites can produce client-specific files.

This review of the core data set has found that progress to date establishes a solid foundation for future research. In summary, Brandeis staff and the sites have been able to develop a set of core data items and some of the needed cross-site data collection protocols. Additionally, Brandeis staff have led ongoing data collection training and reliability testing at the sites in order to preserve the quality of the data set over time.

APPENDIX VIII

CALCULATING THE NHC-AAPCC REIMBURSEMENT UNDERWRITING FACTORS

Rationale

Under the NHC-AAPCC formula, SHMOs are reimbursed the same amount of money for serving severely impaired people (who live in the community) as they do for institutionalized people. It was discovered that the frail group of elders who live in the community incur similar expenditures for acute health care to institutionalized elders (Gruenberg and Stuart, 1982). Changing the regular reimbursement formula so that the provider receives the same amount of money for a severely impaired member, whether or not the person is institutionalized, provides two important improvements in the reimbursement system:

1. providers are more accurately reimbursed for serving impaired elders which neutralizes previously existing incentives to avoid marketing to and enrolling impaired elders.
2. an incentive is created for the SHMOs to provide more cost-effective care by substituting less expensive community-based care for high-priced institutional care.

There is a third result of the change in the NHC-AAPCC formula which, if left alone, would result in over-payment to providers for serving unimpaired (and moderately impaired) elders who live in the community. The regular AAPCC underwriting factors for community members is calculated by including the health care costs for all non-institutionalized elders which includes the relatively high costs for the severely impaired community elders. Because the NHC-AAPCC formula effectively transfers the high cost,

severely impaired community elders from the community underwriting cells to the NHC underwriting cells, the average cost of care for the remaining community-cell elders is reduced. The NHC-AAPCC underwriting factors for the community members therefore need to be adjusted downward to compensate for their less expensive case mix compared to the community-cell beneficiaries covered under the regular-AAPCC.

Method of Adjustment

In order to adjust the community underwriting factors in the NHC-AAPCC, we must know or estimate the percentage of community members (in the regular AAPCC) who are severely impaired. Data from the 1977 Current Medicare Survey (CMS) was used to estimate the overall number of severely impaired community members. Individuals who reported on the CMS that they were homebound, were assumed to be severely impaired. This included all people who reported that:

1. they needed to stay in bed most of the time.
2. they needed to stay in the house most of the time, or
3. they could not go outside without the help of another person.

These included approximately 5% of the community elderly population.

It would be erroneous, however, to assume that the overall figure of 5% were evenly distributed among each of the age, sex, and welfare status underwriting cells. Because the CMS data provided only a small number of cases within each underwriting cell with which to conduct an analysis, the percentages of severely impaired among individual cells sometimes fluctuated from national distribution patterns. We therefore smoothed estimates of the proportions of severely impaired community members for each age, sex, and welfare status underwriting cell. These are shown in

Table 1. It should be noted that they display the following reasonable behavior:

1. for each subgroup, the prevalence of severe impairment increases with age.

2. women have a greater likelihood of being severely impaired than men, holding the other variables constant,

3. people on welfare have a greater likelihood of being severely impaired than people not on welfare, holding the other variables constant.

The proportions of community elders who are severely impaired (in Table 1) are then used to compute the NHC-AAPCC underwriting factors for community members. The formula for the computation is as follows:

Let p = the proportion of severely impaired people within each underwriting cell (i.e., from Table 1).

Let i = the index for each community underwriting cell from the regular AAPCC table (Table 2).

Let L = the index for each institutional underwriting cell (Table 2).

Let i' = the new NHC-AAPCC community underwriting index (the completed NHC-AAPCC appears in Table 3).

Then i' for each of the cells is determined by the following equation:

$$(i - Lp) / (1 - p) = i'$$

Following are two examples of the computation:

1. males, aged 65-69 on welfare.

[1.35 - (2.05 * .047)] / (1 - .047) = 1.32

2. males, 65-69 who are non-welfare.

[.7 (2.05 * .021)] / (1 - .021) = .67

The figures in Table 3 serve as the community underwriting cells for the NHC - AAPCC reimbursement formula. The NHC category is exactly the same as the institutional underwriting cells for the regular AAPCC formula (Table 2). Medicare adjusts the regular AAPCC formula every year to reflect changes in per capita expenditures for each underwriting cell. The NHC formula also has to be recalculated every year to reflect the changes made to the regular AAPCC formula.

TABLE 1

PROPORTIONS OF ELDERLY IN THE COMMUNITY
WHO ARE SEVERELY IMPAIRED* BY
AGE, SEX, AND WELFARE STATUS
(SOURCE: 1977 CURRENT MEDICARE SURVEY)

	WELFARE	NON-WELFARE
Male		
65-69	.047	.021
70-74	.062	.030
75-79	.077	.039
80-84	.093	.049
85 and over	.114	.060
Female		
65-69	.063	.016
70-74	.101	.040
75-79	.138	.066
80-84	.177	.090
85 and over	.229	.124

*Severely impaired is defined to include all individuals who stay in bed most or all of the time, stay at home most or all of the time and those who cannot go outside without the help of another person.

TABLE 2

REGULAR AAPCC UNDERWRITING FACTORS

PART A

	INSTITUTIONAL	WELFARE	NON-WELFARE
Male			
65-69	1.93	1.30	0.70
70-74	2.35	1.65	0.85
75-79	2.35	2.05	1.10
80-84	2.35	2.35	1.20
85 and over	2.35	2.35	1.20
Female			
65-69	1.65	0.90	0.60
70-74	1.90	1.15	0.70
75-79	2.00	1.40	0.85
80-84	2.00	1.65	1.00
85 and over	2.00	1.90	1.10

PART B

	INSTITUTIONAL	WELFARE	NON-WELFARE
Male			
65-69	1.70	1.20	0.85
70-74	1.90	1.45	1.00
75-79	1.90	1.60	1.10
80-84	1.90	1.60	1.10
85 and over	1.90	1.60	1.10
Female			
65-69	1.50	1.05	0.70
70-74	1.65	1.20	0.85
75-79	1.65	1.20	0.95
80-84	1.65	1.20	0.95
85 and over	1.65	1.20	0.95

TABLE 3

NHC AAPCC UNDERWRITING FACTORS

PART A

	INSTITUTIONAL	WELFARE	NON-WELFARE
Male			
65-69	1.93	1.27	0.67
70-74	2.35	1.60	0.80
75-79	2.35	2.02	1.05
80-84	2.35	2.35	1.14
85 and over	2.35	2.35	1.14
Female			
65-69	1.65	0.85	0.58
70-74	1.90	1.07	0.65
75-79	2.00	1.30	0.77
80-84	2.00	1.57	0.90
85 and over	2.00	1.87	0.97

PART B

	INSTITUTIONAL	WELFARE	NON-WELFARE
Male			
65-69	1.70	1.18	0.83
70-74	1.90	1.42	0.97
75-79	1.90	1.57	1.06
80-84	1.90	1.57	1.06
85 and over	1.90	1.57	1.06
Female			
65-69	1.50	1.02	0.69
70-74	1.65	1.11	0.82
75-79	1.65	1.11	0.88
80-84	1.65	1.11	0.88
85 and over	1.65	1.11	0.88

APPENDIX IX

Exhibit 1

M E M O R A N D U M

TO: Sidney Trieger and Thomas Kickham

FROM: Walter Leutz and Don Westwater

RE: UNIFORM SAMPLING PROCEDURES FOR VERIFICATION OF NHC STATUS

DATE: January 16, 1986

This is in response to your November 12th comments on our proposal for procedures for verification of NHC status (dated August 30, 1985). Our understanding is that the proposal outlined on pages four to six is acceptable with the following modifications or clarifications.

- A uniform methodology be employed by all demonstration sites regarding the random sampling methodology used to select verification cases.

- The validation and reporting processes be conducted on a monthly basis, even if the batch size is not reached for purposes of determining error rates.

- All sites participate in the validation process (for members determined NHC and those determined non-NHC), even those sites which don't require NHC status for members to become eligible to receive long term care services.

We propose that the sites a sampling procedure similar to Kaiser's which both HCFA and Brandeis staff regard as a good approach. Below, is a description of our proposed sampling methodology.

The Case management director (or someone from the verifying agency) should choose a number from 0-9 (the case managers should not know the code and it should be changed every few months). All members who are assessed NHC and have that number in the far right column of their ID number should be sent for verification. An equal number of non-NHC people should be verified by selecting the first non-NHC person that is "CAFed" after each NHC individual.

34:8

A problem at some of the sites will occur because they screen out the majority of individuals who would likely be found non-NHC. This produces a pool of CAFed people, all or nearly all of whom, are assessed NHC. If a site has not administered enough CAFs to make up the non-NHC portion of the sample, the verifier could use the same sampling approach described above to select verification cases from the group of people who had been screened out of the comprehensive assessment process. The same column and ID number used to select cases from the group of CAFed people could be used to select non-NHC verifications from the group that was screened by telephone and determined not to require formal assessment with the CAF. Only the balance of the non-NHC assessments, the number required to raise the number of non-NHC verifications to the same number of NHC verifications, need to be verified from the group of screened individuals.

The batch size of 20 verifications that was recommended in the the August 30 proposal is maintained for the purpose of determining error rates but verifications will be conducted on a monthly basis. As you stated in your November comments, this will "provide for detection and corrective action, albeit on a limited basis, for cases that were improperly classified."

Attached, is a copy of our newly revised proposal. Please let us know if this sampling methodology is acceptable. We await your approval before informing the sites of their requirement to adopt it.

REVISED VERIFICATION PROCEDURE

Normal sample size: A number equivalent to 10% of CAFed individuals assessed as NHC and an equal number of individuals who were assessed as non-NHC.

Rationale: HCFA requirement for initial period but subject to change based on analysis.

- Sample composition: split equally between NHCs and non-NHCs.

Rationale: HCFA requirement for initial period but subject to change based on analysis.

Note 1: If current proportions of NHC/CAF hold, at most sites this would mean verifying a larger proportion of non-NHCs than NHCs. If a site has not administered enough CAFs to make up the non-NHC portion of the sample, the verifier should randomly choose members who received a telephone screen, up to the number required to produce the 50-50 sample. If verification review is based on a CAF interview, the site must produce these materials for the verifier.

- Sample selection procedures:

Each site's case management director (or someone from the verifying agency) chooses a number from 0 to 9 (the case managers do not know the code and it changes every few months), and all assessments that are positive NHC with that number in the far right column of the member's ID number are sent for verification. The next person to be assessed as non-NHC after the NHC member selected is also sent to the verifier. The verifier is given no indication of site's classification prior to making the decision. The verifier may: work from the completed HSF and CAF, the taped interview, or make a home visit to the member to make the determination.

Rationale: cannot allow bias in sample selection or in classification decisions.

- Batch size: for purposes of reporting and counting errors by the verification agency, the initial batch size is 20 (twenty) cases. However, verifications will be conducted on a monthly basis even if the number of verifications does not amount to twenty. Ten percent of the CAFed NHC individuals and an equal number of non-NHC individuals will be verified on a monthly basis.

Rationale: The small batch size (and possibly even smaller number of verifications within a month) is intended to provide more immediate feedback to the sites than that which would

occur with larger samples. Much larger samples (80-100) are required to be confident that the differences between SHMO and verifier are not the result of normal sampling and testing errors. However, if we wait for this many verifications to occur before informing the sites of their error rates, many of the members' care plans may already have been implemented based upon inaccurate assessments. The smaller sample size will quickly focus attention on the sources of disagreement, and it is hoped it will lead to their rectification.

- Definition of "error": a classification of case by the verifier (into NHC or not NHC category) that differs from the SHMO's classification. Thus, each misclassification is counted as an error even though there may be no net error in the 50-50 split between NHC and non-NHC.

  Rationale: the goal of the process should be correct classifications, not just a correct level of total reimbursement.

  Note: The verifier's classification is considered "correct" for reimbursement purposes. Subsequent discussion of cases classified erroneously may lead to a change of category by the verifier. These changes should be incorporated in subsequent accretion cycles, but they do not alter the initial count as an error. Sites and verifiers should discuss all disagreements about classifications to maintain the validity of the system.

- Error thresholds: If more than 4 (four) of the 20 (twenty) cases in a batch were classified erroneously by the SHMO, the sample size will be increased to a number equal to 50% of CAFs to select the next batch. If the error rate for this batch does not exceed 20%, sampling for the next batch reverts to the standard rate. If the error rate for the 50% batch is greater than 20%, sampling will continue at the 50% rate for another batch, and so on.

  Rationale: the 20% error rate and the 50% threshold are HCFA requirements. The counting framework is another compromise between statistical confidence and practical timeframes and verification costs (see batch size).

- Reporting: for each batch the verification agency will report the SHMO and verifier classifications for each case, noting and totaling all errors. These results of each batch will be sent promptly to the site, the HCFA project officer, and Brandeis. Brandeis will report quarterly to HCFA and the sites on the process as a whole across sites.

- Costs: At some sites, these procedures may increase the current levels of costs for verification (and perhaps for comprehensive assessment). However, unless the sampling size

is increased due to unacceptable error rates, these costs are not unreasonable in the context of the HCFA requirement that sites absorb the costs of verification. We request that sites monitor and report all costs of verification, for inclusion in Brandeis' report on the process.

- Verification of Recertifications: HCFA requires that sites recertify NHC status every 90 days. These recertifications will be verified quarterly at a sampling rate of 10%. There will be no distributional requirements between NHC and non-NHC classifications on these recertification verifications. If the error rate on these verifications exceeds 20%, the sample size for the next quarter's recertifications will increase to 25%. If the error rate for this sample does not exceed 20%, the next quarter's recertification verification rate will revert to 10% an so forth.

  Rationale: The 10%-25% sampling framework is a compromise between the 20%-50% requirement for initial classifications and the costs of quarterly recertification verifications.

- Brandeis Interviews of Verification and Case Management Staff: In order to fairly assess the verification and classification processes, it is necessary that Brandeis staff interview both site and verification agency staff. These interviews will be conducted over the telephone and will solicit the insights of staff concerning the strengths and weaknesses of the procedures and classification protocols being used.

- Initial Assessment and Report on the Verification Process: The procedures recommended herein are subject to revision based on initial experience. The Brandeis proposal of May 1, 1985 contains criteria and procedures for determining appropriate batch sizes and error rates once an empirical base is established. Brandeis will collect information on the verification process and outcomes and issue a report with recommendations for changes (if indicated) by March 1, 1986.

APPENDIX IX

Exhibit 2

NHC VERIFICATIONS

SITE	YEAR	QUARTER	ASSESSMENT	VERIFICATION
CA	85	3	NHC	NHC
CA	85	3	NHC	NHC
CA	86	1	NHC	NHC
CA	86	1	NHC	NHC
CA	85	3	NHC	NHC
CA	86	1	NHC	NHC
CA	86	1	NHC	NHC
CA	86	1	NHC	NHC
CA	85	4	NHC	NHC
CA	85	4	NHC	NHC
CA	85	3	NHC	NHC
CA	85	4	NHC	NHC
CA	86	1	NHC	NHC
CA	85	3	NHC	NHC
CA	85	3	NHC	NHC
CA	85	3	NHC	NHC
CA	85	3	NHC	NHC
CA	86	1	NHC	NHC
CA	86	1	NHC	NHC
CA	85	3	NHC	NHC
CA	86	1	NHC	NON-NHC
CA	86	1	NON-NHC	NON-NHC
CA	86	1	NON-NHC	NON-NHC
CA	86	1	NON-NHC	NON-NHC
CA	86	1	NON-NHC	NON-NHC
CA	86	1	NON-NHC	NON-NHC
CA	86	1	NON-NHC	NON-NHC

SUMMARY OF NHC VERIFICATIONS FOR CA

TOTAL NUMBER OF VERIFIED NHC ASSESSMENTS	20
NUMBER OF NHC ASSESSMENTS DETERMINED TO BE NON-NHC	1
NUMBER OF NON-NHC ASSESSMENTS DETERMINED TO BE NHC	0
NUMBER OF VERIFIED NON-NHCs	6
PERCENTAGE OF SITE'S ASSESSMENTS VERIFIED	96%

NHC VERIFICATIONS

SITE	YEAR	QUARTER	ASSESSMENT	VERIFICATION
MN	85	1	*	*
MN	85	2	NHC	*
MN	86	1	NHC	*
MN	86	1	NHC	NHC
MN	86	1	NHC	NHC
MN	86	1	NHC	NHC
MN	86	1	NHC	NHC
MN	86	1	NHC	NHC
MN	86	1	NHC	NHC
MN	86	1	NHC	NHC
MN	86	1	NHC	NHC
MN	86	1	NHC	NHC
MN	85	2	NHC	NHC
MN	85	2	NHC	NHC
MN	85	1	NHC	NHC
MN	85	2	NHC	NHC
MN	85	2	NHC	NHC
MN	85	1	NHC	NHC
MN	85	1	NHC	NHC
MN	85	2	NHC	NHC
MN	85	2	NHC	NHC
MN	85	2	NHC	NHC
MN	85	1	NHC	NHC
MN	86	1	NHC	NON-NHC
MN	86	1	NON-NHC	NHC
MN	85	2	NON-NCH	NON-NHC
MN	85	2	NON-NHC	NON-NHC
MN	86	1	NON-NHC	NON-NHC
MN	85	2	NON-NHC	NON-NHC
MN	86	1	NON-NHC	NON-NHC
MN	85	1	NON-NHC	NON-NHC
MN	85	1	NON-NHC	NON-NHC
MN	86	1	NON-NHC	NON-NHC

*DENOTES CASES THAT WERE RE-REVIEWED OR,
INFORMATION WAS INADEQUATE FOR CONDUCTING A VERIFICATION

NHC VERIFICATIONS

SUMMARY OF NHC VERIFICATIONS FOR MN

TOTAL NUMBER OF VERIFIED NHC ASSESSMENTS	20
NUMBER OF NHC ASSESSMENTS DETERMINED TO BE NON-NHC	1
NUMBER OF NON-NHC ASSESSMENTS DETERMINED TO BE NHC	1
NUMBER OF VERIFIED NON-NCHs	8
PERCENTAGE OF SITE'S ASSESSMENTS VERIFIED	93%

NHC VERIFICATIONS

SITE	YEAR	QUARTER	ASSESSMENT	VERIFICATION
NY	85	3	NHC	NHC
NY	85	3	NHC	NHC
NY	85	3	NHC	NHC
NY	86	1	NHC	NHC
NY	85	3	NHC	NHC
NY	85	3	NHC	NHC
NY	85	4	NHC	NHC
NY	86	1	NHC	NHC
NY	85	3	NHC	NHC
NY	85	3	NHC	NHC
NY	85	3	NHC	NHC
NY	85	3	NHC	NHC
NY	85	3	NHC	NHC
NY	85	3	NHC	NHC
NY	85	3	NHC	NHC
NY	85	3	NHC	NHC
NY	85	3	NHC	NHC
NY	85	3	NHC	NHC
NY	85	3	NHC	NHC
NY	85	3	NHC	NHC
NY	86	1	NHC	NHC
NY	85	3	NHC	NHC
NY	86	1	NHC	NHC
NY	85	3	NHC	NHC
NY	85	3	NHC	NHC
NY	85	0	NHC*	NHC*
NY	85	3	NHC*	NON-NHC*
NY	85	3	NHC*	NON-NHC*
NY	85	3	NON-NHC	NON-NHC
NY	85	3	NON-NHC	NON-NHC
NY	85	3	NON-NHC	NON-NHC
NY	85	3	NON-NHC	NON-NHC
NY	85	3	NON-NHC	NON-NHC
NY	85	3	NON-NHC	NON-NHC
NY	85	3	NON-NHC	NON-NHC
NY	85	3	NON-NHC	NON-NHC
NY	86	1	NON-NHC	NON-NHC

*DENOTES CASES THAT WERE RE-REVIEWED OR,
INFORMATION WAS INADEQUATE FOR CONDUCTING A VERIFICATION

NHC VERIFICATIONS

SUMMARY OF NHC VERIFICATIONS FOR NY

TOTAL NUMBER OF VERIFIED NHC ASSESSMENTS	25
NUMBER OF NHC ASSESSMENTS DETERMINED TO BE NON-NHC	0
NUMBER OF NON-NHC ASSESSMENTS DETERMINED TO BE NHC	0
NUMBER OF VERIFIED NON-NHCs	9
PERCENTAGE OF SITE'S ASSESSMENTS VERIFIED	100%

NHC VERIFICATIONS

SITE	YEAR	QUARTER	ASSESSMENT	VERIFICATION
OR	85	4	NHC	NHC
OR	86	1	NHC	NHC
OR	85	4	NHC	NHC
OR	85	4	NHC	NHC
OR	85	3	NHC	NHC
OR	85	4	NHC	NHC
OR	85	4	NHC	NHC
OR	85	4	NHC	NHC
OR	85	4	NHC	NHC
OR	85	4	NHC	NHC
OR	85	4	NHC	NHC
OR	85	4	NHC	NHC
OR	85	3	NHC	NHC
OR	85	3	NHC	NHC
OR	85	4	NHC	NHC
OR	85	2	NHC	NHC
OR	86	1	NHC	NHC
OR	86	1	NHC	NHC
OR	86	1	NHC	NHC
OR	85	4	NHC	NHC
OR	86	1	NHC	NHC
OR	85	3	NHC	NHC
OR	85	3	NHC	NHC
OR	85	3	NHC	NHC
OR	85	2	NHC	NHC
OR	85	4	NHC	NHC
OR	85	3	NHC	NHC
OR	86	1	NHC	NHC
OR	86	1	NHC	NON-NHC
OR	86	1	NON-NHC	NHC
OR	85	2	NON-NHC	NON-NHC
OR	85	4	NON-NHC	NON-NHC
OR	86	1	NON-NHC	NON-NHC
OR	86	1	NON-NHC	NON-NHC
OR	85	3	NON-NHC	NON-NHC
OR	85	2	NON-NHC	NON-NHC
OR	85	4	NON-NHC	NON-NHC
OR	86	1	NON-NHC	NON-NHC
OR	85	3	NON-NHC	NON-NHC
OR	86	1	NON-NHC	NON-NHC
OR	85	4	NON-NHC	NON-NHC
OR	86	1	NON-NHC	NON-NHC
OR	85	3	NON-NHC	NON-NHC
OR	86	1	NON-NHC	NON-NHC
OR	85	3	NON-NHC	NON-NHC
OR	85	3	NON-NHC	NON-NHC
OR	85	4	NON-NHC	NON-NHC
OR	85	4	NON-NHC	NON-NHC
OR	85	4	NON-NHC	NON-NHC

OR	85	3	NON-NHC	NON-NHC
OR	85	4	NON-NHC	NON-NHC
OR	85	4	NON-NHC	NON-NHC
OR	85	3	NON-NHC	NON-NHC
OR	85	4	NON-NHC	NON-NHC

SUMMARY OF NHC VERIFICATIONS FOR OR

TOTAL NUMBER OF VERIFIED NHC ASSESSMENTS	28
NUMBER OF NHC ASSESSMENTS DETERMINED TO BE NON-NHC	1
NUMBER OF NON-NHC ASSESSMENTS DETERMINED TO BE NHC	1
NUMBER OF VERIFIED NON-NHCs	24
PERCENTAGE OF SITE'S ASSESSMENTS VERIFIED	96%

NHC VERIFICATIONS

SUMMARY OF NHC VERIFICATIONS FOR ALL SITES

TOTAL NUMBER OF VERIFIED NHC ASSESSMENTS	93
NUMBER OF NHC ASSESSMENTS DETERMINED TO BE NON-NHC	3
NUMBER OF NON-NHC ASSESSMENTS DETERMINED TO BE NHC	2
NUMBER OF VERIFIED NON-NHCs	47
PERCENTAGE OF SITE'S ASSESSMENTS VERIFIED	97%
NET PERCENTAGE OF NHC ASSESSMENTS VERIFIED	99.3%

APPENDIX X

Health Status Form

CONFIDENTIAL

Please help us plan for your health care by answering these questions and returning the questionnaire to us in the enclosed envelope.

DIRECTIONS: Complete this form by filling in the appropriate information in the spaces or boxes provided. Unless otherwise indicated, select the one answer that fits you best and mark an [X] in the box.

2

Member I.D. Number

3

1. NAME _____ 4

Last First Middle Initial 5

2. ADDRESS _____ 6

Number Street Apartment No.

_____ 7

City/Town State Zip Code 8

3. TELEPHONE ( ) _____ ( ) _____ 9

Area Code Home Area Code Office 10

4. IN CASE OF EMERGENCY, WHOM MAY WE CONTACT?

11

_____ 12

Name Relationship 13

_____ 14

Address City, State Zip 15

_____ 16

Telephone: Day Night 17

5. Are you currently taking any medications?

Yes ☐ 1
No ☐ 2

6. List prescriptions and medicines you are currently taking.

Medications	**For what health conditions do you take this medication?**

7. Compared to other persons your age, would you say your health is: (Check one)

Excellent . ☐ 1
Good .... ☐ 2
Fair ..... ☐ 3
Poor ..... ☐ 4

8. Do you regularly receive any of the following special treatments? (Check all that apply)

	Yes	**No**
(a) Injections	☐ 1	☐ 2
(b) Oxygen	☐ 1	☐ 2
(c) Changing of bandages	☐ 1	☐ 2
(d) Tube feedings	☐ 1	☐ 2
(e) Tracheostomy care	☐ 1	☐ 2
(f) Ostomy care	☐ 1	☐ 2
(g) Catheter care	☐ 1	☐ 2
(h) Chemotherapy	☐ 1	☐ 2
(i) Other (Describe):	☐ 1	☐ 2

9. Prior to enrollment in this health plan, did you have a physician or a particular medical clinic you went to for routine health problems?

Yes ☐ 1
No ☐ 2

10. IF YES, please complete information below:

Name of regular physician or medical clinic _____ Telephone _____

Street _____ City _____ State, Zip _____

11. Do you have any of the following health conditions? (Check NO if you do not have the health condition)

	Yes	No
(a) Diabetes (high blood sugar disease)	☐ 1	☐ 2
(b) High blood pressure	☐ 1	☐ 2
(c) Heart trouble	☐ 1	☐ 2
(d) Stroke	☐ 1	☐ 2
(e) Lung/breathing problems	☐ 1	☐ 2
(f) Chronic cough	☐ 1	☐ 2
(g) Cancer	☐ 1	☐ 2
(h) Circulation problems	☐ 1	☐ 2
(i) Stomach/bowel problems	☐ 1	☐ 2
(j) Urinary problems (bladder)	☐ 1	☐ 2
(k) Other health conditions (describe):	☐ 1	☐ 2

_____

_____

12. Are any of these conditions getting worse? Yes ☐ 1
IF YES, which ones are getting worse? No ☐ 2

_____

_____

_____

13. Do any of your health conditions interfere with your daily activities? Yes ☐ 1
IF YES, please explain: No ☐ 2

_____

_____

_____

14. WHICH OF THE FOLLOWING STATEMENTS FITS YOU BEST IN TERMS OF HEALTH? (*Read all statements before answering—check only one box*)

(a) Must stay in bed all or most of the time ☐ 1
(b) Must stay in the house all or most of the time ☐ 2
(c) Need the help of another person in getting around inside or outside the house ☐ 3
(d) Need the help of some special aid, such as a cane or wheelchair, in getting around inside or outside the house ☐ 4
(e) Do not need the help of another person or a special aid but have trouble in getting around freely ☐ 5
(f) Not limited in any of these ways ☐ 6

15. During the past 12 months, how many times were you admitted as a patient in a ho... (Check one box)

None	☐	1
Once	☐	2
2-3 times	☐	3
More than 3 times	☐	4

16. For what condition(s) were you in the hospital?

_____

_____

17. During the past 6 months, how many separate times did you use an emergency room at a hospital?

None	☐	1
Once	☐	2
2-3 times	☐	3
4-6 times	☐	4
More than 6 times	☐	5

18. In the past 6 months, how many times did you visit a medical doctor or clinic (not counting hospital or emergency room care?) (Check one box)

None	☐	1
Once	☐	2
2-3 times	☐	3
4-6 times	☐	4
More than 6 times	☐	5

19. During the past 12 months, were you in a nursing home or convalescent home?

Yes	☐	1
No	☐	2

20. IF YES, for what reason(s) were you in the nursing home?

_____

_____

21. Are you currently considering applying for admission to a nursing home?

Yes	☐	1
No	☐	2

22. BECAUSE OF A DISABILITY OR HEALTH PROBLEM, do you need or receive help from another person for any of the following activities? (Check all boxes that apply) Check the "NO" box if no help is needed.

	I receive or need help of another person:		
	NO	SOME OF THE TIME	MOST OF THE TIME
(a) Using the toilet in the bathroom	☐ 1	☐ 2	☐ 3
(b) Bathing, including sponge baths	☐ 1	☐ 2	☐ 3
(c) Dressing	☐ 1	☐ 2	☐ 3
(d) Eating	☐ 1	☐ 2	☐ 3
(e) Getting in/out of bed or chairs	☐ 1	☐ 2	☐ 3

23. BECAUSE OF A DISABILITY OR HEALTH PROBLEM, do you receive or need help from another person for the following activities? (Check all boxes that apply) NOTE: Even if someone else usually does these tasks, are you physically able to do them by yourself?

Activities	Receive/Need Help	
	Yes	No
(a) Preparing meal	☐ 1	☐ 2
(b) Shopping for groceries, etc.	☐ 1	☐ 2
(c) Doing routine household chores	☐ 1	☐ 2
(d) Managing money	☐ 1	☐ 2
(e) Doing laundry	☐ 1	☐ 2
(f) Taking medications	☐ 1	☐ 2
(g) Getting to places out of walking distance	☐ 1	☐ 2
(h) Using the telephone	☐ 1	☐ 2

24. If you receive help with any of the above activities (question 22 or 23) who are your helpers? (Give their name and relationship, e.g. daughter, spouse, etc.)

Name _____ Relationship _____

Name _____ Relationship _____

25. BECAUSE OF A DISABILITY OR HEALTH PROBLEM, do you use any of the following special equipment? (Check all boxes that apply)

	Yes	No
(a) Wheelchair	☐ 1	☐ 2
(b) Walker	☐ 1	☐ 2
(c) Cane	☐ 1	☐ 2
(d) Grab bars	☐ 1	☐ 2
(e) Bath bench	☐ 1	☐ 2
(f) Hoyer lift	☐ 1	☐ 2
(g) Bedside commode	☐ 1	☐ 2
(h) Hospital bed	☐ 1	☐ 2
(i) Ramps	☐ 1	☐ 2
(j) Oxygen equipment	☐ 1	☐ 2
(k) Other (describe):	☐ 1	☐ 2

_____

26. Are you currently receiving any of the following services from an agency? (Check all boxes that apply)

	Receive Help From Agency		
	Yes	No	
Visiting Nurse	☐ 1	☐ 2	93
Therapist (Physical, Occupational, Speech)	☐ 1	☐ 2	94
Homemaker/Home Health Aide	☐ 1	☐ 2	95
Social Worker	☐ 1	☐ 2	96
Adult Day Health Center	☐ 1	☐ 2	97
Assistance with Transportation	☐ 1	☐ 2	98
Other (explain):	☐ 1	☐ 2	99

_____ 100

_____

27. Do you smoke cigarettes?

Yes ☐ 1 101
No ☐ 2

IF YES, how many cigarettes per day? _____ 102

28. Do you drink alcoholic beverages?

Never ☐ 1 103
Occasionally ☐ 2
Frequently ☐ 3
Daily ☐ 4

29. During the past 12 months, have you attempted to do any of the following:

	YES	NO	NOT NECESSARY	
(a) Lose weight	☐ 1	☐ 2	☐ 3	104
(b) Quit smoking	☐ 1	☐ 2	☐ 3	105
(c) Reduce alcohol intake	☐ 1	☐ 2	☐ 3	106
(d) Increase exercise	☐ 1	☐ 2	☐ 3	107

(e) Other (specify): _____ 108

30. How many living children do you have? _____ 109

31. What is your current living arrangement? (Check each box that applies)

Live alone ☐ 110
With spouse ☐ 111
With child(ren) ☐ 112
With other relative(s) ☐ 113
With non-relative(s) ☐ 114

32. What type of housing do you live in?

I live in my own residence (house, condominium, apartment, mobile home)	☐ 1	115
I live in the residence of a friend or relative	☐ 2	
I live in senior citizen housing	☐ 3	
I live in a group home, foster care, or board and care home	☐ 4	
I live in a nursing home	☐ 5	
Other _____	☐ 6	

33. Do you own your residence (house, condominium, mobile home)?

Yes ☐ 1 116
No ☐ 2

34. Do you now care for a disabled person?

Yes ☐ 1 117
No ☐ 2

What is your relationship to the disabled person? _____ 118

35. Does that disabled person live with you?

Yes ☐ 1 119
No ☐ 2

36. When were you born?

120
_____ 121
Mo./Day/Year 122

37. What is your sex?

Male ☐ 1 123
Female ☐ 2

38. What is your current marital status?

Married	☐ 1	124
Widowed	☐ 2	
Divorced	☐ 3	
Separated	☐ 4	
Never married	☐ 5	

39. What is the highest level of education you have completed? (Check one) 125

Grade school	☐ 1	
Some high school	☐ 2	
High school graduate	☐ 3	
Some college	☐ 4	

40. Below is a list of annual income groups. Which group comes closest to the total amount of your household income? This includes income of each person in the household, including social security, pensions, rent from property, dividends, interest, earned income, help from relatives and any other income. (Check one box)

126

- **Under $3,000 per annum** ☐ 1
- **$3,000-$5,999** ☐ 2
- **$6,000-$9,999** ☐ 3
- **$10,000-$14,999** ☐ 4
- **$15,000-$24,999** ☐ 5
- **$25,000 and over** ☐ 6

41. Is there anything else you would like us to know about you? 127

_____

_____

_____

42. Did you receive help in filling out this form? 128

- **Yes** ☐ 1
- **No** ☐ 2

43. IF YES, what is the name and relationship of your helper?

_____ 129

Name Relationship

THANK YOU FOR YOUR COOPERATION IN COMPLETING THIS FORM

APPENDIX XI

SOCIAL/HEALTH MAINTENANCE ORGANIZATION

DEMONSTRATION PROJECT

COMPREHENSIVE ASSESSMENT FORM

developed by

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Revised
October, 1985
Final Revision 12

SOCIAL/HMO COMPREHENSIVE ASSESSMENT FORM

Code

Code

1. IDENTIFYING/EMERGENCY INFORMATION

(1) ID Number _____ Date of Assessment _____ (4)

(2) Medicare Number _____ Assessment Form Completed by

(3) Medicaid Number _____ _____

_____ Location of Interview _____

NAME _____

(Last) (First) (Middle Initial)

ADDRESS _____

(Street) (Apartment Number)

TELEPHONE ( ) -

Area Code

EMERGENCY CONTACTS

a. NAME _____ Relationship _____

Address _____

Telephone: Home _____ Work _____

Has Key to House |__| Yes |__| No

b. Name _____

Address _____

Telephone: Home _____ Work _____

Has Key to House |__| Yes |__| No

c. Person responsible for bill: |__| Client |__| Other

Name _____

Address _____

d. Name of Primary Physician _____

address _____

(5)

2. SEX

Male ☐ 1

Female ☐ 2

3. AGE or DATE of Birth _____

Place of Birth _____

(6) 4. CURRENT MARITAL STATUS

Are you currently married, divorced, separated, widowed, single?

Married ☐ 1

Widowed ☐ 2

Divorced ☐ 3

Separated ☐ 4

Single, never married ☐ 5

(7) How Long? Years_____

Months_____

(8) 5. USUAL LIVING ARRANGEMENTS (check all that apply)

Live Alone	How Long?_____	☐ 1
With Spouse	How Long?_____	☐ 2
With Children	How Long?_____	☐ 3
With Other Relative	How Long?_____	☐ 4
With Nonrelative	How Long?_____	☐ 5

(9) Number Living Children _____

Number Children within Hour Travel _____

(10) Number Living Siblings _____

Number Siblings Within Hour Travel _____

6. Pets in Household: Yes ☐ No ☐

Code

(11) 7. TYPE OF HOUSING

				HOW LONG?	Subsidized YES	Subsidized NO
House	Own ☐ 01	Rent ☐ 02				
Condominium	Own ☐ 03	Rent ☐ 04				
Apartment in elderly housing			☐ 05			
Apartment (not in elderly housing)			☐ 06			
Rented room(s) no private kitchen			☐ 07			
Group Home, Foster Care, Board&Room, Hotel			☐ 08			
Nursing Home, Name			☐ 09			
Other			☐ 10			

(12) 8. NUMBER OF PERSONS IN HOUSEHOLD ☐☐

(13) 9. EMPLOYMENT (major type during lifetime)

Client:_____ Current ☐ 1

Date Retired:_____ Retired ☐ 2

Not employed outside of home ☐ 3

(14) 10. Spouse: Current ☐ 1

Date Retired_____ Retired ☐ 2

Not employed outside of home ☐ 3

(15) 11. PHYSICAL HEALTH

*Compared to other persons your age, would you say that your health is excellent, good, fair, or poor?

Excellent	☐	1
Good	☐	2
Fair	☐	3
Poor	☐	4

(16) 12. *How does that compare to your health one year ago? About the same, Better now or worse now?

about the same	☐	1
better now	☐	2
Worse now	☐	3

Comments _____

_____

_____

(17) 13. MEDICATIONS:
Are you currently taking any medications ? Yes |__| 1
No |__| 2

What prescription medications are you currently taking ? This includes medicines, pills or injections. How do you manage your meds?

MEDICATIONS	COMMENTS (e.g. effects, self care, OTC, prescribed. etc.)

NOTE: Over the counter meds. (whether prescribed by M.D. or not) may be added as a clinical option.

(18) 14. TOTAL NO. OF PRESCRIPTION MEDICATIONS (not OTC) |__|__|

15. Do you regularly have any of the following?
- Blood pressure checks |__| No |__| Yes
- testing of blood sugar levels |__| No |__| Yes
- other regular monitoring |__| No |__| Yes

Code 16. HEALTH STATUS: Do you have any of the following health problems at the present time?

(Check "YES" or "NO" for each of the following)

	1 YES	2 NO	HEALTH PROBLEM	COMMENTS for clinical use (e.g. effects on functioning, etc.)
(19)			Diabetes	
(20)			High Blood Pressure	
(21)			Heart Trouble	
(22)			Effects of Stroke	
(23)			Lung/ Breathing Problems	
(24)			Chronic Cough	
(25)			Cancer	
(26)			Circulation Problems (arms,legs,feet,etc)	
(27)			Stomach/ Bowel Problems	
(28)			Urinary Problems	
(29)			Arthritis	
(30)			Amputation	
(31)			Skin Disorders (ulcers, sores, severe itching)	
(32)			Effects of recent fracture/injury	
(33)			Parkinson's Disease	

Code

16. HEALTH STATUS: (continued)

	1 YES	2 NO	HEALTH PROBLEM	COMMENTS (for clinical use)
(34)			Alzheimer's/Dementia type disorders	
(35)			Glaucoma	
(36)			Cataracts	
(37)			Chest Pain	
(38)			Shortness of Breath	
(39)			Dizziness	
(40)			Fainting Spells	
(41)			Headaches	
(42)			Recent Falls (in past month	
(43)			Weight Change	
(44)			Drug Allergies	
(45)			Other	

17. When was your last physical examination? _____

18. Current influenza shot? |__| Yes |__| No

Code

19. TREATMENTS:
Do you have any regular treatments, such as oxygen, skin care, or injections?

(Check any current treatments that client is regularly receiving. No need to read full list.)

None ☐

(46) Yes column

Treatments	Current Treatments: Frequency					Self Care		Caregiver	Can Be Trained		Comments
	Yes	D	HR	N	HR	Yes	No		Yes	No	
1. Parenteral Meds/Injections											
2. Inhalation Treatment											
3. Oxygen											
4. Suctioning											
5. Aseptic Dressing											
6. Lesion Irrigation											
7. Cath/Tube Irrigation											
8. Ostomy Care											
9. Parenteral Fluids											
10. Tube Feeding											
11. Bowel/ Bladder Rehab											
12. Bedsore Treatment											
13. Indwelling Catheter											
14. Minor Skin Care											
15. Intake/Output											
16. Vital Signs Every Four Hours											
17. Tracheotomy											
18. Chemotherapy											
19. Other:											

VISION IMPAIRMENT (with or without glasses)

-how is your vision? Can you read the newspaper? (If yes, code 1 A)

If, no:

-can you see to read headlines, or large print only? (code 1 B)

-do you have to use a magnifying glass to read? (code 1 B)

If client cannot see to read at all:

-can you see obstacles in your way, or the general layout of the furniture? (code 2)

If cannot see obstacles:

-can you tell light from dark? If yes, code 3: If no, code 4

HEARING (with or without hearing aid)

-how is your hearing? Can you hear normal speech without difficulty?

-can you hear me, without my raising my voice? If yes, code 1

If no:

-can you hear if someone speaks slowly, in a loud voice, and directly to you? If yes, code 2

-even when someone talks slow and loud, do you still have difficulty hearing?
-do y[illegible] not hear, or misunderstand a lot of what is being said - ev[illegible] with a loud voice? If yes, code 3

No hearing at all that is useful for communication code 4

SPEECH AND COMMUNICATION: No questions or probes. This should be coded from observation, or asking a caregiver. Use Manual definitions.

Code

20. SENSORY/COMMUNICATION/IMPAIRMENTS: (Check as appropriate, note corrective device, if used)

		Impairment				Date Last Checkup	Codes indicated Comments (Include use of glasses, hearing a
		None Min 1	Mod 2	Sev 3	Total 4		
(47)	1. Sight	A / B					Newsprint, television/large objects light-dark?
(48)	2. Hearing						Conversation/raised volume/much
(49)	3. Speech						Understood/difficulty understanding writes symbols
(50)	4. Communication						Ability to understand and communica

21. SPECIAL DIET

Has your physician ever instructed you to follow a special diet, for example, low salt or diabetic?

Yes ☐ 1
No ☐ 2

(51) If yes, specify type, how long prescribed, adherence:

_____

22. NUTRITION ADEQUACY (clinical judgment): Appears adequate ☐ 1

Need for further evaluation ☐ 2

Comments: _____

_____

Probe: What do you usually eat in a day? What did you eat for breakfast? For lunch? Evening Meal?

23. Do you have any dental or gum problems? Yes ☐ 1

No ☐ 2

_____

24. When did you last see a dentist? _____

25. Do you smoke? (Cigarettes, cigar, pipe) Yes ☐ 1

If yes, how many per day? _____ No ☐ 2

Code (Site Option Page)

RISK FACTORS

26. During the past 12 months, have you attempted to do any of the following?

	YES	NO	NOT NECESSARY
(a) Lose weight	☐ 1	☐ 2	☐ 3
(b) Quit smoking	☐ 1	☐ 2	☐ 3
(c) Reduce alcohol intake	☐ 1	☐ 2	☐ 3
(d) Increase exercise	☐ 1	☐ 2	☐ 3

(e) Other (specify): _____

27. Do you drink alcoholic beverages? Would you say daily, frequently, occasionally or never?

1 ☐ Daily

2 ☐ Frequently (2-6 times per week)

3 ☐ Occasionally (1 per week or less)

4 ☐ Never, did you ever?

If Daily or Frequently

28. Has anyone ever told you that you had a drinking problem?

1 ☐ No

2 ☐ Yes 3 ☐ Present 4 ☐ Past

29. Suspect Alcohol Problem ☐ No ☐ Yes

Probes: Have you ever thought you drink too much?

Have you ever had any trouble with your drinking?

Code

UTILIZATION OF SERVICES:

30. *During the past 12 months, how many separate times were you admitted as a patient in a hospital?

(55) None |_|1 Once |_|2 2-3 Times |_|3 4-6 Times |_|4 Over 6 times |_|5

31.*Starting with the most recent admission, for what reasons were you in the hospital?

Reason	No. of Days	Name of Hospital	M.D.
(56) Total No. Days			

32. *During the past 6 months, how many separate times did you use an emergency room at a hospital?

(57) None |_|1 Once |_|2 2-3 Times |_|3 4-6 Times |_|4 Over 6 times |_|5

For what reasons: _____

_____

33.*During the past 6 months, how many separate times did you visit a medical doctor, or clinic?

(58) None |_|1 Once |_|2 2-3 Times |_|3 4-6 Times |_|4 Over 6 times |_|5

34.*During the past 12 months, were you in a nursing home or convalescent home?

(59) Reason? _____ Yes |_|1

_____ How Long? _____ No |_|2

35.*Have you ever been in a nursing home, prior to the last 12 months?

(60) Reason? _____ Yes |_|1

When? _____ For How Long? _____ No |_|2.

MOBILITY - PROBES:

a. Re HOMEBOUND:

Probe: How often do you go outside the house, around the neighborhood?

When did you last go outside?

b. NEEDS HELP OF EQUIPMENT:

Probe: Do you use any equipment, like a cane, walker, or wheelchair when you go outside?

With your (cane/walker/wheelchair) are you able to go out alone, and get around by yourself?

c. NEEDS HELP OF ANOTHER PERSON:

Probe: Does someone always go along with you when you go out?

If ———————— (caregiver) were not available, could you go out alone around the neighborhood?

d. HAS TROUBLE GETTING AROUND:

This may be due to such problems as:

vision problems, anxiety attacks. dizziness, confusion,

mental/emotional problems, incontinence, physical problems with legs/feet,e

Code

36.*Are you currently considering applying for admission to a nursing home?

Yes ___ 1
No ___ 2

(61) Which one? _____

ATTITUDE/PREFERENCE OF CLIENT/FAMILY TO REMAIN IN COMMUNITY:

N.A ___

37.*At the present time, do you prefer to live here (at home/ in the community), or in a nursing home?

(62) Community ___ 1
Nursing Home ___ 2

38.*What does your family think about that? (probe if necessary: about your living at home or in a nursing home)

(63) Community ___ 1
Nursing Home ___ 2

MOBILITY: The next questions are about going outside.

39.*Because of a disability or health problem, do you receive or need help from another person, or use special equipment in going outside?

(64) a. Does not go outside (except for medical appointments)
Does Not ___ 1
Goes Outside ___ 2

IF DOES NOT GO OUTSIDE, ASK b. THEN CHECK NA FOR c-f:

(65) b. Do you have to stay in bed all or most of the time?
Yes ___ 1
No ___ 2
NA ___ 3

IF GOES OUTSIDE, ASK c, d, AND CHECK NA FOR b.

(66) c. In going outside, do you need help of another person?
Yes ___ 1
No ___ 2
NA ___ 3

(67) d. In going outside, do you need the help of special equipment? (e.g., cane, walker, wheelchair)
Yes ___ 1
No ___ 2
NA ___ 3

IF "NO" TO c, d, ASK e, f: IF "YES", CHECK NA FOR e, f.

(68) e. Do you have some trouble getting around outside the house?
Yes ___ 1
No ___ 2
NA ___ 3

(69) f. Has no trouble getting around outside.
Yes ___ 1
No ___ 2
NA ___ 3

-can you walk without anyone helping you?
-in what way does(the caregiver) help you?
-do you need:
  -continuous physical support (3)
  -support just now and again (2)
  -just standby supervision (2)

TRANSFERRING

-can you get in/out of bed or chair by yourself?
-what kind of help do you need?
-do you need some support, like
 -guarding, guiding, protecting? (2)
 -standby supervision? (2)
-do you have to be lifted by another person? (3)
-is not transferred (4)

BATHING

-what type of bath do you take? (sponge bath, tub, shower)
-do you need any help with this? For example, help with:
  -getting in/out of tub/shower? (2)
  -turning on, or bringing the water? (2)
  -towel drying? (2)
  -washing any part of the body? (2)
  -standby supervision, someone just to be there? (2)
-does someone have to bathe you (all or almost all of the body) (3)

EATING

-do you need any help with eating?
-do you need help with
  -cutting meat, buttering bread? (2)
  -opening cartons? pouring liquid? (2)
  -holding glass, or cup? (2)
-is spoon fed, intravenous feeding (3) (does not bring food from plate to mouth)

BOWEL/BLADDER ACCIDENTS

-do you ever have any bowel or bladder accidents?
-how often does this happen?
-do you need to wear a pad at any time: e.g. at night, or when you go out?
-has full control, takes full care of

-can you propel the wheelchair by yourself? (Get to bathroom, kitchen, etc, independently?)
-what kind of help do you need with w
  -locking/unlocking brakes (2)
  -getting through doorways (2)
  -getting up and down ramps (2)
-does someone push you all or most of the time? (3)
-pushed on occasions only for longer distances (2)

GROOMING

-can you comb and shampoo your hair by yourself?
-can you shave yourself?
-what about taking care of finger nai toe nails?
-do you need help with
  -any of these activities (2)
  -some part of the activity (2)
-are you unable to do any of this? (

DRESSING

-do you need any help with dressing?
-can you get your clothes from the drawer, or closet?
-do you need help with
  -buttons and fasteners? (2)
  (do not count tying shoes)
-can you pull on your pants yourself?
-can you get things over your head?
-are you mainly dressed by your helper
-do you stay partly undressed, most of the time? (in pajamas,nightgown,et

USING THE TOILET

-can you go to the bathroom, and use the toilet by yourself?
-do you need help with:
  getting there?
  -getting on or off the toilet seat
  -cleansing yourself?
  -arranging your clothes?
-do you use a night bedpan, or commode If so, do you need help with this at n or help in disposing of contents?
-does not use toilet room at all.

INCONTINENCE: Frequency

Seldom = once a week or less

Code ADL:

40.*The next questions are about taking care of yourself. First, I am going to ask if, because of a disability or health problem, you need any help with:

	Activity	Need for help 1 (circle) (80)	Adaptive Equipment (circle) (81)	Helpers Name or Agency	Helpers Code 2	Frequency of Help (hrs and times/wk) (82)	Unmet Need Yes 1 (83)	Unmet Need No 2	Unmet Need DK 3	Comme
(71)	Walking	1 2 3 4	Cane 1 Walker 2 Prosthesis 3							
(72)	Wheeling 5 ☐ N/A	1 2 3 4	Wheelchair 4 Ramps 5							
(73)	Getting in/ out of bed/ chair	1 2 3 4	Lift 6 Hospital 7 Bed							
(74)	Grooming	1 2 3								Shampoo, sha foot/nail ca
(75)	Bathing	1 2 3	Bath Bench 8 Grab Bars 9							Type of bath
(76)	Dressing	1 2 3								
(77)	Eating	1 2 3	Dentures 10 Eating Equipment 11							
(78)	Using the toilet	1 2 3	Commode 12 Urinal 13							
(79)	Bowel/ Bladder Accidents	1 2 3	Colostomy 14 Illeostomy 15 Bed Pan 16							

1. Need for Help: 1 = Independent; 2 = Some; 3 = Maximum; 4 = Does Not
2. Helpers: 01=Household Member; 02=Other Family; 03=Neighbor or Friend; 04=Agency; 05=Other

41. INCONTINENCE:

Bladder: No ☐ 1 Seldom ☐ 2 Often ☐ 3 Foley ☐ 4

Bowel: No ☐ 1 Seldom ☐ 2 Often ☐ 3

Probes re Help Needed:

- Who helps? What does helper do? How often?
- How much of the activity CAN you do you yourself?
- Do you have enough help? How dependable is your helper?
- Suppose your helper were sick or unable to come on any day, what would you do?

MEAL PREPARATION

-can you prepare and cook a full meal? (1)
-can you manage light, snack meals by yourself? (not full meal) (2)
-can you prepare any part of the meal yourself? If yes (2)

GROCERY SHOPPING

-do you need any help with shopping?
-how do you get your groceries?
-does someone go along with you?
-can you order by telephone, and then put the groceries away, when delivered
-do you make your own shopping list, the have someone purchase, deliver and pu away (Shopping list only)

ROUTINE HOUSEWORK

-do you need any help with routine housework, such as, help with
-vacuuming, mopping floors? (If no
-cleaning kitchen and bathroom? help) (1)

-can you do any of it by yourself, such as
-dusting, tidying up, washing dishes (2)

-no housework at all (3)

MANAGING MONEY

-do you need any help with managing money?
-can you write your own checks?
-can you balance your account?
-do you pay your own bills? Can you keep track of them?
-what does your helper do? (does some of the above)
Client does none of the above

DOING LAUNDRY

-do you need any help with laundry?
-can you do small items by yourself? (2)

TAKING MEDICATIONS

-do you always remember to take your medications by yourself, or do you need reminders?
-does anyone set them up for you?
-do you need any help in preparing your medications?

(If client does not currently take medications, try to estimate whethe or not help would be needed, and co accordingly)

-completely unable to take medicines

TRAVEL OUT OF WALKING DISTANCE

-when you have to travel to places out of walking distance, how do you usually get there?
-do you need help in
-getting to and from the car/bus? (2)
-in getting in or out of the car/taxi? (2)
-DOES SOMEONE ALWAYS GO ALONG WITH YOU? (2)
-If (your caregiver) were not available, could you go alone by bus, taxi? (1)
-IF USING SENIOR TRANSPORTATION-
Can you manage this by yourself? (1)
Does someone go along with you?
Do you need help getting from building to vehicle, in/out of vehicle (2)

NEEDS SPECIAL ARRANGEMENTS, such as

USING THE TELEPHONE

-can you use the telephone by yourse

-do you need help with dialling, looking up numbers?

-cannot use telephone at all

HEAVY CHORES

-who does the heavy chores around the house? Such as window washing, putting up storms or screens?
-who does general repairs?
-can you do any of this yourself?

Code

42. IADL:* Because of a disability or health problem, do you need any help with:

	Activity	Need for help[1] (circle)	(95) Helpers Name or Agency	(95) Helpers Code[2]	(96) Frequency of Help (hrs and times/wk)	(97) Unmet Need Yes 1	(97) Unmet Need No 2	(97) Unmet Need DK 3	Comments
(86)	Meal Preparation	1 2 3							
(87)	Shopping	1 2 3							
(88)	Routine Housework	1 2 3							
(89)	Manage Money	1 2 3							Write checks, balance
(90)	Laundry	1 2 3							
(91)	Medications	1 2 3							Need reminders?
(92)	Travel (out of Walking Distance	1 2 3							
(93)	Telephone	1 2 3							
(94)	Heavy Chores Home Maintenance	1 2 3							Yard, snow, repairs storms, screens, etc.
	Other								

1. Need for Help: 1 = Independent; 2 = Some; 3 = Maximum
2. Helpers: 1=Household Member; 2=Other Family; 3=Neighbor or Friend; 4=Agency; 5=Other

Probes re Help Needed:
- Who helps? What does your helper do? How often?
- How much of the activity CAN you do yourself?
- Do you have enough help? How dependable is your helper?
- Suppose your helper were sick or unable to come on any day, what would you do?

PROBES - CAREGIVER LIMITATIONS:

Does X have other responsibilities, or problems, that limit the amount of help s/he can give you? For example:

Does X work? Full time or part time?

Does X have a family to look after?

How old are the children?

Is X looking after any other sickness in the family?

How is X's health?

If appropriate:

Is it hard for X because of (age,frailty, sickness,etc) to take care of your particular needs? (e.g heavy physical or emotional burden

Are you able to go to X's home sometime? What makes this difficult?

CAREGIVER LIMITATIONS: (Code all that apply)

1. Caregiver has job responsibilities
2. Job currently restricts caregiving
3. Primary family responsibilities (i.e.lives with/cares for spouse, other relatives, on daily basis)
4. Family responsibilities currently restrict caregiving
5. Is caring for other sickness in family
6. Caregiver is physically impaired
7. Client needs are heavy physical burden for caregiver
8. Client needs are heavy emotional burden for caregiver
9. Caregiver has poor accommodations, cannot take client home.
10. Caregiver's poor finances limit caregiving potential.
11. Client reluctant to ask for more help; client's attitude may be limitation
12. Evidence of caregiver hostility, resentment.
13. Other, specify.

INFORMAL SUPPORTS

Code 43. **PRIMARY CAREGIVER**

(98)

a. Name _____ Age _____

b. Relationship (check) Spouse ☐ 1 Son ☐ 4 Other Rel. ☐ 7
Daughter ☐ 2 Son-in-law ☐ 5 Friend ☐ 8
Dtr.-in-law ☐ 3 Sibling ☐ 6 Neighbor ☐ 9

c. Address/Phone (if needed) _____

_____

d. Help Provided:

Task/Freq Code	TASK	HRS	/WK	/MO	CODE
(99-100)					
(101-102)					
(103-104)					
(105-106)					
(107-108)					
(109-110)					

Freq. Code
1 - Daily
2 - 4-6/wk
3 - 2-3/wk
4 - 1/wk
5 - 2-3/mo
6 - 1/mo or less

(111) e. Caregiver Limitations[1] _____
(code all that apply)

(112) *A. Do you feel confident that (the above caregiver) can continue to help you with the tasks you mentioned, for as long as needed? Would you say that you feel very confident, somewhat confident, or not confident?

Very Confident ☐ 1
Somewhat Confident ☐ 2
Not Confident ☐ 3

(113) *B. If you needed more help, how confident do you feel that you could rely on the above caregiver to provide more help than s/he does now? Would you say that you feel very confident, somewhat confident, or not confident?

Very Confident ☐ 1
Somewhat Confident ☐ 2
Not Confident ☐ 3

Comments: _____

_____

PROBES - CAREGIVER LIMITATIONS:

Does X have other responsibilities, or problems, that limit the amount of help s/he can give you? For example:

Does X work? Full time or part time?

Does X have a family to look after?

How old are the children?

Is X looking after any other sickness in the family?

How is X's health?

If appropriate:

Is it hard for X because of (age,frailty, sickness,etc) to take care of your particular needs? (e.g heavy physical or emotional burden

Are you able to go to X's home sometime? What makes this difficult?

CAREGIVER LIMITATIONS: (Code all that apply)

1. Caregiver has job responsibilities
2. Job currently restricts caregiving
3. Primary family responsibilities (i.e.lives with/cares for spouse, other relatives, on daily basis)
4. Family responsibilities currently restrict caregiving
5. Is caring for other sickness in family
6. Caregiver is physically impaired
7. Client needs are heavy physical burden for caregiver
8. Client needs are heavy emotional burden for caregiver
9. Caregiver has poor accommodations, cannot take client home.
10. Caregiver's poor finances limit caregiving potential.
11. Client reluctant to ask for more help; client's attitude may be limitation
12. Evidence of caregiver hostility, resentment.
13. Other, specify.

44. OTHER CAREGIVERS #1

Code 1. a. Name _____ Age _____

(114) b. Relationship (check)

Spouse	☐ 1	Son	☐ 4	Other Rel.	☐ 7
Daughter	☐ 2	Son-in-Law	☐ 5	Friend	☐ 8
Dtr.-in-Law	☐ 3	Sibling	☐ 6	Nbr.	☐ 9

c. Address/Phone (if needed) _____

_____

Task/Freq Code d. Help Provided:

	Task	Hrs	/Wk	/Mo	Code
(115-116)					
(117-118)					
(119-120)					
(121-122)					

Freq. Code
1 - Daily
2 - 4-6/wk.
3 - 2-3/wk.
4 - 1 wk.
5 - 2-3 mo.
6 - 1/mo. or less

(124) e. Caregiver Limitations[1] _____
(code all that apply)

*A. Do you feel confident that (the above caregiver) can continue to help you with the tasks you mentioned, for as long as needed? Would you say that you feel very confident, somewhat confident, or not confident?

(125)

Very Confident ☐ 1

Somewhat Confident ☐ 2

Not Confident ☐ 3

*B. If you needed more help, how confident do you feel that you could rely on the above caregiver to provide more help than s/he does now? Would you say that you feel very confident, somewhat confident, or not confident?

(126)

Very Confident ☐ 1

Somewhat Confident ☐ 2

Not Confident ☐ 3

Comments: _____

PROBES - CAREGIVER LIMITATIONS:

Does X have other responsibilities, or problems, that limit the amount of help s/he can give you? For example:

Does X work? Full time or part time?

Does X have a family to look after?

How old are the children?

Is X looking after any other sickness in the family?

How is X's health?

If appropriate:

Is it hard for X because of (age,frailty, sickness,etc) to take care of your particular needs? (e.g heavy physical or emotional burden)

Are you able to go to X's home sometime? What makes this difficult?

CAREGIVER LIMITATIONS: (Code all that apply)

1. Caregiver has job responsibilities
2. Job currently restricts caregiving
3. Primary family responsibilities (i.e.lives with/cares for spouse, other relatives, on daily basis)
4. Family responsibilities currently restrict caregiving
5. Is caring for other sickness in family
6. Caregiver is physically impaired
7. Client needs are heavy physical burden for caregiver
8. Client needs are heavy emotional burden for caregiver
9. Caregiver has poor accommodations, cannot take client home.
10. Caregiver's poor finances limit caregiving potential.
11. Client reluctant to ask for more help; client's attitude may be limitation
12. Evidence of caregiver hostility, resentment.
13. Other, specify.

Code 45. OTHER CAREGIVERS

2. a. Name _____ Age _____

(127) b. Relationship (check)

Spouse	☐ 1	Son	☐ 4	Other Rel.	☐ 7
Daughter	☐ 2	Son-in-Law	☐ 5	Friend	☐ 8
Dtr.-in-Law	☐ 3	Sibling	☐ 6	Nbr.	☐ 9

c. Address/Phone (if needed) _____

_____

Task/Freq d. Help Provided:

Task	Hrs	/Wk	/Mo	Code
(128-129)				
(130-131)				
(132-133)				

Freq. Code
1 - Daily
2 - 4-6/wk.
3 - 2-3/wk.
4 - 1 wk.
5 - 2-3 mo.
6 - 1/mo. or less

(134) Caregiver Limitations[1] _____
(code all that apply)

*A. Do you feel confident that (the above caregiver) can continue to help you with the tasks you mentioned, for as long as needed? Would you say that you feel very confident, somewhat confident, or not confident?

(135)

Very Confident ☐ 1

Somewhat Confident ☐ 2

Not Confident ☐ 3

*B. If you needed more help, how confident do you feel that you could rely on the above caregiver to provide more help than s/he does now? Would you say that you feel very confident, somewhat confident, or not confident?

(136)

Very Confident ☐ 1

Somewhat Confident ☐ 2

Not Confident ☐ 3

Code

COMPLETE FOR ALL CLIENTS:

(137) 46. Number of active caregivers _____

If more than one caregiver

(138) 47. Do your (above caregivers) know each other?

Yes |__| 1

No |__| 2

48. Are they each aware of the help that each one is giving to you? Would you say that they are fully aware, partially aware or not aware?

(139)

Fully Aware |__| 1

Partially Aware |__| 2

Not Aware |__| 3

Comments: _____

_____

_____

Code

49. CURRENT COMMUNITY SERVICES RECEIVED FROM AN AGENCY/PURCHASED HELP:

Yes column (140)

No Current Services: ☐ 1

Frequency (141)

	Service	Yes	Frequency	MEDICARE	MEDICAID	PRIVATE	SELF PAY	OTHER	Comments
(141)	1 Visiting Nurse								Give reason for RN visits
(142)	2 Physical Therapist								
(143)	3 Occupational Therapist								
(144)	4 Speech Pathologist								
(145)	5 Personal Care Services								
(146)	6 Housekeeping Services								
(147)	7 Friendly Visitor								
(148)	8 Social Worker								
(149)	9 Day Health Care								
(150)	10 Social Day Care								
(151)	11 Electronic Monitoring, Lifeline, etc.								
(152)	12 Chore Service								
(153)	13 Senior Center								
(154)	14 Transportation								
(155)	15 Home Delivered Meals								
(156)	16 Congregate Dining								
(157)	17 Other								

50. ~~IF NOT CURRENT USER:~~ Have you used any community services in the past 12 months? Yes ☐ 1

(158) No ☐ 2

SERVICE FREQUENCY

Code

51. MENTAL STATUS QUESTIONAIRE:

* Sometimes, people have trouble remembering things. If you do not know the answers to some of the next questions, that's okay. It's very normal. If you do know the answers, the questions may seem obvious, but just give me your answers.

QUESTION	RESPONSE (Write in)	INCORRECT
a. Where are we now?		
b. Where is this place located?		
c. What is today's date, day of month?		
d. What month is it?		
e. What year is it?		
f. How old are you?		
g. What is your birthday?		
h. What year were you born?		
i. Who is the president of the U.S.?		
j. Who was the president before him?		

(159) TOTAL NO. INCORRECT _____

52. We would like to know how you are feeling about things. Would you just answer these questions for me?

1. How much do you feel lonely? Would you say a lot or now much? A lot ☐1 Not much ☐2

2. Do you have a lot to be sad about? Would you say yes or no? Yes ☐1 No ☐2

3. Do you get upset easily? Would you say yes or no? Yes ☐1 No ☐2

In the past year, have you had any of the following problems?

4. Have you been severely depressed? Would you say yes or no? Yes ☐1 No ☐2

5. Have you had major fears or anxieties (worried alot about something)? Would you say yes or no? Yes ☐1 No ☐2

6. Have you had suicidal thoughts or wishes? Would you say yes or no? Yes ☐1 No ☐2

(160) TOTAL "NO" (2) RESPONSES _____

TRAUMATIC EXPERIENCES

53. Has anything happened to you in the past five years that upset you very much? (PROBE, IF NEEDED, DO NOT READ CATEGORIES)

		Approximate Date	
(161)	Loss of spouse		☐ 1
	Loss of other major caregiver		☐ 2
	Other loss, specify		☐ 3
	Traumatic illness/injury		☐ 4
	Move of residence		☐ 5
	Other, specify		☐ 6

Probes: Have you lost anyone near to you that upset you very much? Is there anything else in the past five years that upset you very much?

Comments: _____

SOCIAL INTERACTION: Now I would like to ask you some questions about your family and friends.

Code

54.* On the average, how often do you talk to friends and relatives who do not live with you, either in a visit or on the phone?

Comments:

(162) _____

_____

_____

_____

Daily ☐ 1

1-6 times/week ☐ 2

2-3 times/month ☐ 3

Monthly or less ☐ 4

Rarely or never ☐ 5

55.* How often do you visit or talk with your neighbors?

(163)

Never, don't know them ☐ 1

Regularly, every week at least ☐ 2

Occasionally, one or two times per month ☐ 3

Rarely, less than once per month ☐ 4

56.* Do you have someone that is close to you that you can confide in?

(164)

Yes ☐ 1

If Yes, who? _____

No ☐ 2

57.* Are you involved in any clubs, senior centers, religious or other organizations?

(165)

No ☐ 1

Yes, current ☐ 2

Yes, in past 5 years (not current) ☐ 3

Name	Attend Regularly Yes	No
Senior Center _____		
Religious Service _____		
Religious Club/Organizations _____		
Other _____		

Code

58. SOURCES OF INCOME (Check all that apply)

(166) A. Client ☐ 1 Client/Spouse ☐ 2 B. Other Household Income (167)

(168)
- Social Security ☐ 1
- SSI ☐ 2

(169)
- Private Pension, e.g., railroad ☐ 3
- Interest Income or Dividends ☐ 4
- Veterans' Benefit ☐ 5
- Public Assistance ☐ 6
- Energy Assistance ☐ 7
- Rental Income ☐ 8
- Earned Income ☐ 9

- No other household members ☐ 1
- Earned Income ☐ 2
- Private Pension ☐ 3
- Social Security ☐ 4
- SSI ☐ 5
- Other _____ ☐ 6

_____

In-Kind

(170)
- Subsidized Housing ☐ 1
- Food Stamps ☐ 2
- Help from Family ☐ 3
- DK (Client does not know) ☐ 4
- NA (Client unwilling to respond) ☐ 5

59. MONTHLY INCOME: Below is a list of income groups. Which group comes closest to the total amount of your household income? This includes income from each person in the household, including social security, pensions, rent from property, dividends, earned income, help from relatives, and any other income. (Check one box)

(171)
- A. Under $250 per month ☐ 1
- B. $250 to $500 per month ☐ 2
- C. $501 to $825 per month ☐ 3
- D. $826 to $1,250 per month ☐ 4
- E. $1,251 to $2,100 per month ☐ 5
- F. Over $2,100 per month ☐ 6

60. Does this income include other houdehold members, other than yourself/you and your spouse ?

(172)
- Yes ☐
- No ☐

61. What is your monthly income/monthly income of yourself and your spouse?

(173)

A. Under $250 per month	☐ 1
B. $250 to $500 per month	☐ 2
C. $501 to $825 per month	☐ 3
D. $826 to $1,250 per month	☐ 4
E. $1,251 to $2,100 per month	☐ 5
F. Over $2,100 per month	☐ 6

62. NEED FOR FURTHER FINANCIAL EVALUATION (clinical judgment)

(174)

Yes	☐ 1
No	☐ 2

_____

_____
(describe)

63. Does client have: (check as appropriate)

(175)

Legal Guardian	☐ 1
Conservator	☐ 2
Neither	☐ 3

_____

_____ ( )
Address Phone

(176) 64. Has client made a "living will"?

Yes	☐ 1
No	☐ 2

_____

_____

_____

_____

(End of interview)

Code

Appendix I

PHYSICAL ENVIRONMENT: Note general conditions/areas that are problem or barrier for client (obvious).

1. ENTRY/EXIT/SECURITY (Street to lot/approach to building: number of stairs; railing; condition of walkway; snow/ice removal):

_____

ENTRANCES (Building and unit; locks/security/elevator): _____

_____

NEIGHBORHOOD (Street lights, high risk area): _____

_____

2. GENERAL LIVING AREAS (Clutter; loose rugs, worn electrical cords; walkways; state of repair): _____

_____

SANITATION (Odor; garbage; pets, roaches/rodents): _____

STAIRWAYS (To basement/bedroom/bath; railing, lighting, safety): _____

_____

FAVORITE CHAIR (Sturdy/support adequate): _____

_____

LIGHT/HEAT/VENTILATION: _____

ACCESS TO TELEPHONE/EMERGENCY NUMBERS: _____

BATHROOM:
Access/condition of tub, toilet, sink: _____

General sanitation/safety: _____

KITCHEN:
Access/condition of stove, sink, refrigerator, storage space:

_____

General sanitation/safety: _____

BEDROOM:
Access/condition of bed, mattress, storage space: _____

_____

General sanitation/safety:

3. GENERAL COMMENTS/NEED FOR HOME MODIFICATION, ADAPTIVE DEVICES:

_____

_____

Code

Appendix III

III. INFORMAL SUPPORT EVALUATION

(Circle One)

(179)

1. STATUS 1: Informal support system consists of two or more people who are aware of each other's helping activities. The informal supports have been providing reliable support with adequate frequency. There is a reasonable level of confidence that this support can be continued as long as needed and can be increased, if necessary.

2. STATUS 2: Same as above, but there is only one caregiver.

3. STATUS 3: Informal support system (1 or more caregiver) has been providing reliable support with adequate frequency, but there is no evidence of confidence that this support can be continued as long as needed, and/or that it can be increased, if necessary.

4. STATUS 4: Informal support system has been providing help only when a special need arises or inconsistent support, or with inadequate frequency, but there is a reasonable level of confidence that this level of support can be continued for as long as needed, or at least for the next 6 months.

5. STATUS 5: Informal support system has been providing inconsistent support and/or support with inadequate frequency, and it appears that this level of support cannot continue even at the present level for the next 6 months.

6. STATUS 6: No informal support system is available to meet the client's needs.

NOTE: "Adequate" frequency is evaluated in relation to your assessment of the client's needs on ADLs/IADLs and the potential unmet need.

Reliability and consistency of support is evaluated in relation to your assessment of responses to ADL/IADL probes on dependability.

Probes about caregiver limitations (work/family/health) will help to establish the possibility of continuing the present load of support.

NOTES: PHYSICAL DEPENDENCY INDEX

1. Clients who need personal assistance with any routine household chores, except laundry, but including vacuuming, mopping floors, cleaning bath, etc., should be coded "level 2" (moderate).

2. Clients who need personal assistance only with laundry should be coded "level 1." (minor)

3. Clients coded "2" on the ADL indices for grooming, dressing, bathing, should be coded "level 3" - needs assistance in certain aspects of ADL activities.

4. Clients coded "3" on the ADL indices for grooming, dressing, bathing, should be coded "level 4" - needs extensive, or maximum, help in these activities.

Code

Appendix IV

IV. PHYSICAL DEPENDENCY INDEX:

(Circle one level indicating the client's most severe level of dependency). Circle also A, B, or C under the appropriate level.

(180) 5. Level 5 - Either A or B must be positive

A. Needs help in moving in bed; needs to be fed; needs wheelchair moved
B. Not conscious or not able to communicate needs

4. Level 4 - Either A, B, or C must be positive

A. Needs extensive help in grooming, dressing, bathing, and cannot manage at all without help
(ADLs Coded "3") B. Needs assistance walking indoors, needs to be accompanied to toilet; needs transfer to wheelchair from bed
C. Needs bed bath or bed pan

3. SEVERE DEPENDENCE

(ADLs coded "2") Level 3 - Either A, B, or C must be positive

A. Needs personal assistance for walking
B. Needs assistance in certain aspects of grooming, dressing, or bathing, or needs food cut
C. Needs constant company because of possibility of medical crisis (e.g., falling, fainting)

2. MODERATE DEPENDENCE

Level 2 - Either A, B, or C must be positive

A. Needs personal assistance for light housekeeping chores (e.g., dusting, making beds, removing garbage, vacuum, mop floors, clean bath) or for shopping (except carrying heavy parcels)
B. Cannot cook for self
C. Needs nursing of wounds

1. MINOR DEPENDENCE

Level 1 - Either A, B, or C must be positive

A. Needs personal assistance only for heavy chores (e.g., carpentry, spring cleaning, laundry, putting up curtains), for traveling long distances, or for carrying heavy parcels
B. Needs much encouragement to keep up exercise or activities
C. Needs help with tasks which are demanding on hearing, sight, or coordination (e.g., group conversations, documents, signing)

Appendix V

Code

V. ASSESSMENT: NEED FOR SUPERVISION DUE TO MENTAL IMPAIRMENT

STATUS (Circle one)

(181)

1. None - able to manage all routine and major decisions without assistance and/or will ask for consultation from family/friends where appropriate.

2. Minimal Supervision - able to handle most routine decisions but needs assistance in major decisions; or may need reminders for taking medications, paying bills, or following health care instructions.

3. Moderate Supervision - unable to manage own medications or money even with reminders; or can usually handle routine decisions, but needs help at times with even common sense judgments; can be left unattended for brief periods, or potentially live alone, but the latter would require close monitoring and would be with some risk to the client's safety.

4. Constant Supervision - severe mental impairment: unable to make routine decisions; severely impaired judgment; cannot safely be left unattended even for brief periods.

Appendix VI

Code

VI. PSYCHIATRIC/BEHAVIOR PROBLEMS

(182) 1. Client has no problems known at this time; there appear to be no indications of neurotic problems*; behavior problems**; or psychotic problems***. (see below)

2. Client has mild, or infrequent neurotic, or behavior problems; no psychotic symptoms.

3. Client has severe, or frequent neurotic, or behavior problems; no psychotic symptoms.

4. Client has disturbing, or disabling behavior, or psychotic symptoms that do not physically endanger the self or others.

5. Client has severely disturbing or disabling behavior, psychotic symptoms that endanger the self or others (a suicidal risk, or potential assaultiveness to others).

---

*Neurotic problems: mild depression, pervasive/generalized anxiety, pervasive fears, phobias.

**Behavior problems: alcoholism, extreme agitation/restlessness, wandering, verbally abusive, physically assaultive, inappropriate sexual behavior, extreme regressive behavior, extreme hoarding, stealing.

***Psychotic problems: severe depression (see Manual for definition) delusions, hallucinations.

APPENDIX XII

Social/HMO Reassessment Form

Code

SOCIAL/HMO

REASSESSMENT FORM

I.D. No _____ Date of Reassessment _____

Location of Interview: _____

Form Completed by: _____

NAME _____
Last First Middle Initial

ADDRESS: |__| Same |__| Change: _____

TELEPHONE: |__| Same |__| Change: Area code ( ) _____

1. CURRENT MARITAL STATUS

Are you currently married, divorced, separated, widowed, single?

1 |__| Married 2 |__| Widowed 3 |__| Divorced

4 |__| Separated 5 |__| Single, Never Married

2. USUAL LIVING ARRANGEMENTS (Check all that apply)

1 |__| Live Alone How Long? ____

2 |__| With Spouse How Long? ____

3 |__| With Children How Long? ____

4 |__| With Other Relative How Long? ____

5 |__| With Nonrelative How Long? ____

3. Number Living Children _____

Number Children Within Hour Travel _____

Number Living Siblings _____

Number Siblings Within Hour Travel _____

Code

Cod

4. TYPE OF HOUSING

		How Long	Subsidized	
			Yes	No
1	☐ House ☐ Own ☐ Rent			
2	☐ Condominium ☐ Own ☐ Rent			
3	☐ Apartment in housing for the elderly			
4	☐ Apartment (not in housing for the elderly)			
5	☐ Rented room(s), no private kitchen			
6	☐ Group home, foster care, board and room, hotel			
7	☐ Nursing home, Name _____			
	☐ Other _____			

5. NUMBER OF PERSONS IN HOUSEHOLD

☐☐ (01, 02, etc.)

PHYSICAL HEALTH

6. Compared to other persons your age, would you say that your health is excellent, good, fair, or poor?

1 ☐ Excellent 2 ☐ Good 3 ☐ Fair 4 ☐ Poor

7. How does that compare to your health 6 mos. ago? About the same, better now or worse now?

1 ☐ About the same 2 ☐ Better now 3 ☐ Worse now

Comments _____

_____

Code Cor

8. MEDICATIONS:

Are you currently taking any medications? |__| Yes |__| No

What prescription medications are you currently taking? This includes medicines, pills or injections.

MEDICATION	COMMENTS (e.g. effects, self care, etc.)

9. TOTAL NUMBER OF REGULAR PRESCIRBED MEDICATIONS |__|__|

:ode

Cod

10 . TREATMENTS:

Do you have any regular treatments, such as oxygen, skin care, or injections?

(List any current treatments that client is regularly receiving, or received in past 6 months)

) yes

)lumn

urrent

☐ None

) yes,past 6 months, not current

Treatments	Current Treatments								Not current: Past 6 months	
	Frequency			Self Care		Caregiver	Can Be Trained			
	Yes	Day	Night	Yes	No		Yes	No	Yes	
1. Parenteral Meds/Injections										
2. Inhalation Treatment										
3. Oxygen										
4. Suctioning										
5. Aseptic Dressing										
6. Lesion Irrigation										
7. Cath/Tube Irrigation										
8. Ostomy Care										
9. Parenteral Fluids										
10. Tube Feeding										
11. Bowel/Bladder Rehab										
12. Bedsore Treatment										
13. Indwelling Catheter										
14. Minor Skin Care										
15. Intake/Output										
16. Vital Signs Every Four Hours										
17. Tracheotomy										
18. Chemotherapy										
19. Other:										

VISION IMPAIRMENT (with or without glasses)

-how is your vision? Can you read the newspaper? (If yes, code 1 A)

If, no:

-can you see to read headlines, or large print only? (code 1 B)

-do you have to use a magnifying glass to read? (code 1 B)

If client cannot see to read at all:

-can you see obstacles in your way, or the general layout of the furniture?. (code 2)

If cannot see obstacles:

-can you tell light from dark? If yes, code 3: If no, code 4

HEARING (with or without hearing aid)

-how is your hearing? Can you hear normal speech without difficulty?

-can you hear me, without my raising my voice? If yes, code 1

If no:

-can you hear if someone speaks slowly, in a loud voice, and directly to you? If yes, code 2

-even when someone talks slow and loud, do you still have difficulty hearing?
-do you not hear, or misunderstand a lot of what is being said - even with a loud voice? If yes, code 3

No hearing at all that is useful for communication code 4

SPEECH AND COMMUNICATION: No questions or probes. This should be coded from observation, or asking a caregiver. Use Manual definitions.

11. SENSORY/COMMUNICATION/IMPAIRMENTS: (Check as appropriate, with correction, if applicable)

	Impairment				Date Last Checkup	Codes indicated. Comments (Include use of glasses, hearing aids)
	None Min 1	Mod 2	Sev 3	Total 4		
1. Sight	A ☐ B ☐					Newsprint, television/large objects/ light-dark?
2. Hearing	☐	☐	☐	☐		Conversation/raised volume/much difficulty
3. Speech	☐	☐	☐	☐		Understood/difficulty understanding/ writes symbols
4. Communication	☐	☐	☐	☐		Ability to understand and communicate

12. What is your current weight? _____

13. Recent change: _____

. NUTRITION ADEQUACY (clinical judgment): (Site Option)

☐ Appears adequate ☐ Need for further evaluation

_____

_____

_____

_____

MOBILITY - PROBES:

a. Re HOMEBOUND:

Probe: How often do you go outside the house, around the neighborhood?

When did you last go outside?

b. NEEDS HELP OF EQUIPMENT:

Probe: Do you use any equipment, like a cane, walker, or wheelchair when you go outside?

With your (cane/walker/wheelchair) are you able to go out alone, and get around by yourself?

c. NEEDS HELP OF ANOTHER PERSON:

Probe: Does someone always go along with you when you go out?

If ---------- (caregiver) were not available, could you go out alone around the neighborhood?

d. HAS TROUBLE GETTING AROUND:

This may be due to such problems as:

vision problems, anxiety attacks. dizziness, confusion,

mental/emotional problems, incontinence, physical problems with legs/feet,etc

Code

14. Are you currently considering applying for admission to a nursing home?

Yes |__|1

Which one? _____

No |__|2

ATTITUDE/PREFERENCE OF CLIENT/FAMILY TO REMAIN IN COMMUNITY:

N.A |__|

15.*At the present time, do you prefer to live here (at home/ in the community), or in a nursing home?

Community |__|1

Nursing Home |__|2

16.*What does your family think about that? (probe if necessary: about your living at home or in a nursing home)

Community |__|1

Nursing Home |__|2

MOBILITY: The next questions are about going outside.

17.*Because of a disability or health problem, do you receive or need help from another person, or use special equipment in going outside? (CHECK ALL BOXES THAT APPLY)

a. DOES NOT GO OUTSIDE (except for medical appointments) 1|_|DOES NOT 2|_|GOES OUTSIDE

If a: (homebound)

DO YOU HAVE TO STAY IN BED ALL OR MOST OF THE TIME 1|_|YES 2|_|NO

b. GOES OUTSIDE, BUT NEEDS THE HELP OF SPECIAL EQUIPMENT (e.g. cane, walker, wheelchair) 1|_|YES 2|_|NO

c. GOES OUTSIDE, BUT NEEDS THE HELP OF ANOTHER PERSON 1|_|YES 2|_|NO

d. GOES OUTSIDE AND DOES NOT NEED THE HELP OF A PERSON, OR EQUIPMENT, BUT

HAS SOME TROUBLE GETTING AROUND OUTSIDE THE HOUSE 1|_|YES 2|_|NO

HAS NO TROUBLE GETTING AROUND OUTSIDE THE HOUSE 1|_|YES 2|_|NO

(NOTE: The code should reflect the client's general mobility level as affected by a health, or disability problem, not as affected by weather, or lifestyle.)

-can you walk without anyone helping you?
-in what way does(the caregiver) help you?
-do you need:
  -continuous physical support (3)
  -support just now and again (2)
  -just standby supervision (2)

TRANSFERRING

-can you get in/out of bed or chair by yourself?
-what kind of help do you need?
-do you need some support, like
 -guarding, guiding, protecting? (2)
 -standby supervision? (2)
-do you have to be lifted by another person? (3)
-is not transferred (4)

BATHING

-what type of bath do you take? (sponge bath, tub, shower)
-do you need any help with this? For example, help with:
  -getting in/out of tub/shower? (2)
  -turning on, or bringing the water? (2)
  -towel drying? (2)
  -washing any part of the body? (2)
  -standby supervision, someone just to be there? (2)
-does someone have to bathe you (all or almost all of the body) (3)

EATING

-do you need any help with eating?
-do you need help with
  -cutting meat, buttering bread? (2)
  -opening cartons? pouring liquid? (2)
  -holding glass, or cup? (2)
-is spoon fed, intravenous feeding (3)
 (does not bring food from plate to mouth)

BOWEL/BLADDER ACCIDENTS

-do you ever have any bowel or bladder accidents?
-how often does this happen?
-do you need to wear a pad at any time: e.g. at night, or when you go out?
-has full control, takes full care of

-can you propel the wheelchair by yourself? (Get to bathroom, kitchen, etc, independently?)
-what kind of help do you need with w/
  -locking/unlocking brakes (2)
  -getting through doorways (2)
  -getting up and down ramps (2)
-does someone push you all or most of the time? (3)
-pushed on occasions only for longer distances (2)

GROOMING

-can you comb and shampoo your hair by yourself?
-can you shave yourself?
-what about taking care of finger nails toe nails?
-do you need help with
  -any of these activities (2)
  -some part of the activity (2)
-are you unable to do any of this? (3)

DRESSING

-do you need any help with dressing?
-can you get your clothes from the drawer, or closet?
-do you need help with
  -buttons and fasteners? (2)
  (do not count tying shoes)
-can you pull on your pants yourself?
-can you get things over your head?
-are you mainly dressed by your helper
-do you stay partly undressed, most of the time? (in pajamas,nightgown,etc)

USING THE TOILET

-can you go to the bathroom, and use the toilet by yourself?
-do you need help with:
  getting there?
  -getting on or off the toilet seat
  -cleansing yourself?
  -arranging your clothes?
-do you use a night bedpan, or commode? If so, do you need help with this at ni or help in disposing of contents?
-does not use toilet room at all.

INCONTINENCE: Frequency

Seldom = once a week or less

Code ADL:

18. *The next questions are about taking care of yourself. First, I am going to ask if, because of a disability or health problem, you need any help with:

Activity	Need for help 1 (circle)	Adaptive Equipment (circle)	Helpers: Name or Agency	Helpers: Code 2	Frequency of Help (hrs and times/wk)	Unmet Need: Yes 1	Unmet Need: No 2	Unmet Need: DK 3	Comme
Walking	1 2 3 4	Cane 1 Walker 2 Prosthesis 3							
Wheeling 5 ☐ N/A	1 2 3 4	Wheelchair 4 Ramps 5							
Getting in/ out of bed/ chair	1 2 3 4	Lift 6 Hospital 7 Bed							
Grooming	1 2 3								Shampoo, sha foot/nail ca
Bathing	1 2 3	Bath Bench 8 Grab Bars 9							Type of bath
Dressing	1 2 3								
Eating	1 2 3	Dentures 10 Eating Equipment 11							
Using the toilet	1 2 3	Commode 12 Urinal 13							
Bowel/ Bladder Accidents	1 2 3	Colostomy 14 Illeostomy 15 Bed Pan 16							

1. Need for Help: 1 = Independent; 2 = Some; 3 = Maximum; 4 = Does Not
2. Helpers: 01=Household Member; 02=Other Family; 03=Neighbor or Friend; 04=Agency; 05=Other

19. INCONTINENCE:

Bladder: No ☐ 1 Seldom ☐ 2 Often ☐ 3 Foley ☐ 4

Bowel: No ☐ 1 Seldom ☐ 2 Often ☐ 3

Probes re Help Needed:

- Who helps? What does helper do? How often?
- How much of the activity CAN you do you yourself?
- Do you have enough help? How dependable is your helper?
- Suppose your helper were sick or unable to come on any day, what would you do?

MEAL PREPARATION

-can you prepare and cook a full meal? (1)
-can you manage light, snack meals by yourself? (not full meal) (2)
-can you prepare any part of the meal yourself? If yes (2)

GROCERY SHOPPING

-do you need any help with shopping?
-how do you get your groceries?
-does someone go along with you?
-can you order by telephone, and then put the groceries away, when delivered
-do you make your own shopping list, then have someone purchase, deliver and put away (Shopping list only)

ROUTINE HOUSEWORK

-do you need any help with routine housework, such as, help with
-vacuuming, mopping floors? (If no
-cleaning kitchen and bathroom? help) (1)

-can you do any of it by yourself, such as
-dusting, tidying up, washing dishes (2)

-no housework at all (3)

MANAGING MONEY

-do you need any help with managing money?
-can you write your own checks?
-can you balance your account?
-do you pay your own bills? Can you keep track of them?
-what does your helper do? (does some of the above)
Client does none of the above

DOING LAUNDRY

-do you need any help with laundry?
-can you do small items by yourself? (2)

TAKING MEDICATIONS

-do you always remember to take your medications by yourself, or do you need reminders?
-does anyone set them up for you?
-do you need any help in preparing your medications?

(If client does not currently take medications, try to estimate whether or not help would be needed, and cod accordingly)

-completely unable to take medicines

TRAVEL OUT OF WALKING DISTANCE

-when you have to travel to places out of walking distance, how do you usually get there?
-do you need help in
-getting to and from the car/bus? (2)
-in getting in or out of the car/taxi? (2)
-DOES SOMEONE ALWAYS GO ALONG WITH YOU? (2)
-If (your caregiver) were not available, could you go alone by bus, taxi? (1)
-IF USING SENIOR TRANSPORTATION-
Can you manage this by yourself? (1)
Does someone go along with you?
Do you need help getting from building to vehicle, in/out of vehicle (2)

NEEDS SPECIAL ARRANGEMENTS. such as

USING THE TELEPHONE

-can you use the telephone by yourself

-do you need help with dialling, looking up numbers?

-cannot use telephone at all

HEAVY CHORES

-who does the heavy chores around the house? Such as window washing, putting up storms or screens?
-who does general repairs?
-can you do any of this yourself?

Code

20. **IADL:* Because of a disability or health problem, do you need any help with:**

Activity	Need for help[1] (circle)	Helpers Name or Agency	Helpers Code[2]	Frequency of Help (hrs and times/wk)	Unmet Need Yes 1	Unmet Need No 2	Unmet Need DK 3	Comments
Meal Preparation	1 2 3							
Shopping	1 2 3							
Routine Housework	1 2 3							
Manage Money	1 2 3							Write checks, balance
Laundry	1 2 3							
Medications	1 2 3							Need reminders?
Travel (out of Walking Distance	1 2 3							
Telephone	1 2 3							
Heavy Chores Home Maintenance	1 2 3							Yard, snow, repairs storms, screens, etc.
Other								

1. Need for Help: 1 = Independent; 2 = Some; 3 = Maximum
2. Helpers: 1=Household Member; 2=Other Family; 3=Neighbor or Friend; 4=Agency; 5=Other

Probes re Help Needed:

- Who helps? What does your helper do? How often?
- How much of the activity CAN you do yourself?
- Do you have enough help? How dependable is your helper?
- Suppose your helper were sick or unable to come on any day, what would you do?

PROBES - CAREGIVER LIMITATIONS:

Does X have other responsibilities, or problems, that limit the amount of help s/he can give you? For example:

Does X work? Full time or part time?

Does X have a family to look after?

How old are the children?

Is X looking after any other sickness in the family?

How is X's health?

If appropriate:

Is it hard for X because of (age,frailty, sickness,etc) to take care of your particular needs? (e.g heavy physical or emotional burden

Are you able to go to X's home sometime? What makes this difficult?

CAREGIVER LIMITATIONS: (Code all that apply)

1. Caregiver has job responsibilities
2. Job currently restricts caregiving
3. Primary family responsibilities (i.e.lives with/cares for spouse, other relatives, on daily basis)
4. Family responsibilities currently restrict caregiving
5. Is caring for other sickness in family
6. Caregiver is physically impaired
7. Client needs are heavy physical burden for caregiver
8. Client needs are heavy emotional burden for caregiver
9. Caregiver has poor accommodations, cannot take client home.
10. Caregiver's poor finances limit caregiving potential.
11. Client reluctant to ask for more help; client's attitude may be limitation
12. Evidence of caregiver hostility, resentment.
13. Other, specify.

INFORMAL SUPPORTS

Code 21. **PRIMARY CAREGIVER**

a. Name _____ Age _____

b. Relationship (check)

Spouse	☐ 1	Son	☐ 4	Other Rel.	☐ 7
Daughter	☐ 2	Son-in-law	☐ 5	Friend	☐ 8
Dtr.-in-law	☐ 3	Sibling	☐ 6	Neighbor	☐ 9

c. Address/Phone (if needed) _____

_____

Task/Freq Code

d. Help Provided:

TASK	HRS	/WK	/MO	CODE

Freq. Code
1 - Daily
2 - 4-6/wk
3 - 2-3/wk
4 - 1/wk
5 - 2-3/mo
6 - 1/mo or less

e. Caregiver Limitations[1] _____
(code all that apply)

*A. Do you feel confident that (the above caregiver) can continue to help you with the tasks you mentioned, for as long as needed? Would you say that you feel very confident, somewhat confident, or not confident?

Very Confident ☐ 1

Somewhat Confident ☐ 2

Not Confident ☐ 3

*B. If you needed more help, how confident do you feel that you could rely on the above caregiver to provide more help than s/he does now? Would you say that you feel very confident, somewhat confident, or not confident?

Very Confident ☐ 1

Somewhat Confident ☐ 2

Not Confident ☐ 3

Comments: _____

PROBES - CAREGIVER LIMITATIONS:

Does X have other responsibilities, or problems, that limit the amount of help s/he can give you? For example:

Does X work? Full time or part time?

Does X have a family to look after?

How old are the children?

Is X looking after any other sickness in the family?

How is X's health?

If appropriate:

Is it hard for X because of (age,frailty, sickness,etc) to take care of your particular needs? (e.g heavy physical or emotional burden)

Are you able to go to X's home sometime? What makes this difficult?

CAREGIVER LIMITATIONS: (Code all that apply)

1. Caregiver has job responsibilities
2. Job currently restricts caregiving
3. Primary family responsibilities (i.e.lives with/cares for spouse, other relatives, on daily basis)
4. Family responsibilities currently restrict caregiving
5. Is caring for other sickness in family
6. Caregiver is physically impaired
7. Client needs are heavy physical burden for caregiver
8. Client needs are heavy emotional burden for caregiver
9. Caregiver has poor accommodations, cannot take client home.
10. Caregiver's poor finances limit caregiving potential.
11. Client reluctant to ask for more help; client's attitude may be limitation
12. Evidence of caregiver hostility, resentment.
13. Other, specify.

Code

Appendix IV

IV. PHYSICAL DEPENDENCY INDEX:

(Circle one level indicating the client's most severe level of dependency). Circle also A, B, or C under the appropriate level.

5. Level 5 - Either A or B must be positive

   A. Needs help in moving in bed; needs to be fed; needs wheelchair moved
   B. Not conscious or not able to communicate needs

4. Level 4 - Either A, B, or C must be positive

   A. Needs extensive help in grooming, dressing, bathing, and cannot manage at all without help
   B. Needs assistance walking indoors, needs to be accompanied to toilet; needs transfer to wheelchair from bed
   C. Needs bed bath or bed pan

(ADLs Coded "3")

3. SEVERE DEPENDENCE

   Level 3 - Either A, B, or C must be positive

(ADLs coded "2")

   A. Needs personal assistance for walking
   B. Needs assistance in certain aspects of grooming, dressing, or bathing, or needs food cut
   C. Needs constant company because of possibility of medical crisis (e.g., falling, fainting)

2. MODERATE DEPENDENCE

   Level 2 - Either A, B, or C must be positive

   A. Needs personal assistance for light housekeeping chores (e.g., dusting, making beds, removing garbage, vacuum, mop floors, clean bath) or for shopping (except carrying heavy parcels)
   B. Cannot cook for self
   C. Needs nursing of wounds

1. MINOR DEPENDENCE

   Level 1 - Either A, B, or C must be positive

   A. Needs personal assistance only for heavy chores (e.g., carpentry, spring cleaning, laundry, putting up curtains), for traveling long distances, or for carrying heavy parcels
   B. Needs much encouragement to keep up exercise or activities
   C. Needs help with tasks which are demanding on hearing, sight, or coordination (e.g., group conversations, documents, signing)

Code

V. ASSESSMENT: NEED FOR SUPERVISION DUE TO MENTAL IMPAIRMENT

STATUS (Circle one)

1. None - able to manage all routine and major decisions without assistance and/or will ask for consultation from family/friends where appropriate.

2. Minimal Supervision - able to handle most routine decisions but needs assistance in major decisions; or may need reminders for taking medications, paying bills, or following health care instructions.

3. Moderate Supervision - unable to manage own medications or money even with reminders; or can usually handle routine decisions, but needs help at times with even common sense judgments; can be left unattended for brief periods, or potentially live alone, but the latter would require close monitoring and would be with some risk to the client's safety.

4. Constant Supervision - severe mental impairment: unable to make routine decisions; severely impaired judgment; cannot safely be left unattended even for brief periods.

Code

VI. PSYCHIATRIC/BEHAVIOR PROBLEMS

1. Client has no problems known at this time; there appear to be no indications of neurotic problems*; behavior problems**; or psychotic problems***. (see below)

2. Client has mild, or infrequent neurotic, or behavior problems; no psychotic symptoms.

3. Client has severe, or frequent neurotic, or behavior problems; no psychotic symptoms.

4. Client has disturbing, or disabling behavior, or psychotic symptoms that do not physically endanger the self or others.

5. Client has severely disturbing or disabling behavior, psychotic symptoms that endanger the self or others (a suicidal risk, or potential assaultiveness to others).

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*Neurotic problems: mild depression, pervasive/generalized anxiety, pervasive fears, phobias.

**Behavior problems: alcoholism, extreme agitation/restlessness, wandering, verbally abusive, physically assaultive, inappropriate sexual behavior, extreme regressive behavior, extreme hoarding, stealing.

***Psychotic problems: severe depression (see Manual for definition) delusions, hallucinations.

APPENDIX XIII

Reliability Standard

Intraclass Correlation Coefficient

C. Tompkins, L. Gruenberg

Reliability Standard

Initial assessments of interviewer reliability have made use of an analysis of variance (ANOVA) intraclass correlation coefficient R_I, taken from Winer [1971].[1] This type of interrater reliability measure has been widely used, and has been considered by some to be the most appropriate statistic available for this purpose (Tinsley and Weiss [1975]; Cicchetti [1980]).[2,3]

This approach corresponds to a one-way random effects ANOVA where separate and independent ratings of individuals are treated as the unit of analysis. Observed ratings of each individual i by an interviewer j can be represented as

$$X_{ij} = t_i + e_{ij}$$

where X_{ij} is the observed rating,
t_i is the standard or "true" rating, and
e_{ij} is the error of measurement.

Our assessments include ratings of up to eight individuals by each case manager. Since t is a constant (and is known) for each individual, then variance in the measurement of X_{ij} for any individual (and for pooled individuals) indicates disagreement ($S_{e_{ij}}^2 > 0$), and is taken to represent unreliability of average ratings by case manager j.

The mean square within individuals (MSW) is an unbiased estimate of the variance associated with all sources of interrater disagreement. The mean square between individuals (MSB) is an estimate of the true differences between individuals, in addition to the error components measured by MSW. The intraclass correlation used here is defined as

$$R_I = \frac{\text{theta}}{1 + \text{theta}},$$

where $\text{theta} = \frac{MSB - (m)MSW}{(k)(m)MSW}$, k is the number of raters being compared for each assessment, and m is a correction factor for bias.[4]

The coefficient is interpreted as the proportion of the variance that is attributable to true differences between individuals. Accordingly, $1 - R_I$ (for nonnegative values of R_I) can be interpreted as the proportion of variance due to disagreement. A value of 1.0 is attained when there is perfect agreement between the raters. Negative values would be interpreted as zero reliability. Our current practice is

to require retraining and further testing of any case manager who fails to reach a value of R_I as high as 0.85.[5]

The appropriateness of this approach is still being evaluated. At this point, it is considered to have definite strengths. For example, R_I is sensitive to the degree of difference between ratings (i.e., one or more scale points) and to the variability of individual scores in each test. An important aspect of our review of this technique has to do with its handling of the underlying variability in individuals' true scores (t_i). There is reason to question the impact on the statistic of heterogeneity and/or pronounced skewness in the underlying population distributions (Whitehurst [1984]; McNemar [1969]).[6,7] The most probable effect of these distributional characteristics would be a lowering of the obtained R_I. Since this would tend to make case manager reliability assessments more stringent, and our results to this point have been favorable, then the method so far appears to be satisfactory.

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1. Winer, B. J., Statistical Principles in Experimental Design, McGraw Hill, 1971.
2. Tinsley, H., and D. Weiss, Interrater reliability and agreement of subjective judgments, Journal of Counseling Psychology 22, 1975.
3. Cicchetti, D. V., Reliability of reviews for the American Psychologist: A biostatistical assessment of the data, American Psychologist 35, 1980.
4. Bias is introduced when an estimator is computed as the ratio of unbiased estimators. The correction factor, m, is defined to be $\frac{n(k-1)}{n(k-1)-2}$.
5. Other measures are also used to assess the reliability of a particular case manager. More than three errors on any one scale item, or any error of more than one scale point on any test item, will trigger a review by the Site trainer concerning the need for further training and testing.
6. Whitehurst, G., Interrater Agreement for Journal Manuscript Reviews, American Psychologist 39, 1984.
7. McNemar, Q., Psychological Statistics (4th ed.), Wiley, 1969.

APPENDIX XIV

Assessment Instruments and Process

Assessment Instruments and Process

The revised Health Status Form (HSF) and Comprehensive Assessment Form (CAF), as well as common data elements for the Application Form, are attached.

I. The Health Status Form:

The Health Status Form is a mailed questionnaire, to be completed by all Social/HMO enrollees as part of the initial enrollment process. It provides baseline data on the total S/HMO enrollee population, as well as providing clinical indications of need for immediate medical assessment or comprehensive assessment of long-term care needs. The use of specific questions (ADL and mobility level) on the HSF and the Application Form for setting up queuing categories and case mix targets is discussed in Appendix 2.

The Health Status Form will be updated annually for all enrollees. Items that do not change may be eliminated, and a somewhat shorter HSF may be used for the annual updates. The annual update HSF will be mailed out to each enrollee each year of the Demonstration, approximately around the time of their initial enrollment date (i.e., within two weeks either side of that date).

II. The Comprehensive Assessment Form:

The Comprehensive Assessment Form (CAF) will be administered to S/HMO enrollees who are functionally impaired and at risk for long-term care services. Triggers and procedures for making the decision to administer the CAF are discussed below.

At initial enrollment, if an enrollee is triggered for further comprehensive assessment, the CAF will be administered by a face-to-face interview, usually in the client's home by a qualified staff member. If the CAF is administered in a location other than the client's home (e.g., a hospital or nursing home), at the case manager's discretion, information about the home structure may be collected by a telephone call or by a home assessment visit with a family member or other caregiver. All initial comprehensive assessments, whether for new enrollees, or for enrollees triggered for CAF after being in the program for some time, will be by face-to-face interview as described above.

The CAF provides more detailed baseline information on the S/HMO population that is functionally impaired and at risk for long-term care services. In addition, the CAF is a clinical instrument that provides information for development of care plans.

The Comprehensive Assessment Form, for enrollees receiving long-term care services, will be updated at least semiannually. In updating the form, some of the information on health status, services utilization, and social situation may be completed from available client records. Some of the questions require client self-report and will involve a face-to-face interview. These procedures will be outlined in detail in the Assessment Manual, to be developed within the next 2-3 months.

III. Triggers for CAF Administration:

a. At Initial Enrollment:

At initial enrollment, there will be two ways in which the CAF is triggered from the HSF:

1. Certain responses on the HSF will always trigger a CAF.
2. Certain responses on the HSF will trigger a telephone call from the case manager to the enrollee to ascertain if a comprehensive assessment is necessary at that time. (Guidelines for this telephone screen are currently under discussion.)

b. HSF Responses That Will Always Trigger a CAF

1. The client is bedbound (Q. 9)
2. The client has 2 or more ADL deficits (Q. 23).

The above triggers would capture about 3 percent of clients at the most frail end of the spectrum. Some of these enrollees may have adequate informal supports and may not need additional long-term care services from the S/HMO. However, information from the CAF should be available on these frail enrollees. They should be known to the case management staff and monitored periodically to ascertain if their needs are changing.

Data from the Health Interview Survey indicates the following levels of ADL deficits.

Number of ADL Areas In Which Assistance Was Needed	Percent (1977 HIS)
0	95.3
1	1.8
2	1.3
3	0.8
4	0.8

c. HSF Responses That Will Trigger a Case Manager Telephone Call to Ascertain the Need for Immediate Comprehensive Assessment:

1. Any mobility limitation (beyond bedbound) (Q. 9);
2. One or more ADL deficit (Q. 23);
3. One or more IADL deficit (Q. 25);
4. Currently considering applying to nursing home (Q. 14)
5. Was in nursing home during past 12 months (Q. 13);
6. Because of a disability, uses special equipment (Q. 18);
7. Is currently receiving home care services (Q. 27);
8. Is currently receiving special treatments (Q. 18);
9. Health condition(s) is getting worse (Q. 16);
10. Health condition(s) interfere with daily activities (Q. 17);
11. Recently widowed (within past 12 months) (Q. 2a);
12. Cares for a disabled person who lives with enrollee (Q. 6);
13. Medications inconsistent with diagnoses;
14 Has attempted to reduce alcohol intake;

May Trigger a Telephone Call (Case Manager Decision)

15. Received help in filling out the form (Q. 30);
16. Unable to sign the form, if site asks for signature;
17. Very incomplete or confused form.

Note: The case manager will document:

(a) That a telephone call was made;

(b) What triggered the telephone call;

(c) Did the telephone call result in CAF administration?

(d) If not CAF administration, what action was taken (e.g., listed for periodic telephone monitoring, no current needs - client advised to call if situation changes, etc.)

d. Other Possible CAF Triggers for Current Enrollees:

Enrollees who have been in the program for some time may be triggered for case management contact to ascertain the need for a comprehensive assessment due to a change in their health or social situation. These enrollees will be referred to the case management staff by other providers, either inside or outside the Social/HMO system, or by their families and other informal network, or self referred. These triggers include the following:

- a hospital or nursing home episode for diagnoses that may result in the need for home care and support services;
- a change in functional level due to a health condition;
- increased use of medical transportation;
- multiple clinic visits;
- recurring hospitalization;
- a change in social situation that might indicate need for community support services (e.g., loss of spouse, loss of major caregiver, change of residence, etc.);
- any weakening of the informal caregiver network.

IV. Care Plan Forms:

Administration of the CAF will usually result in development of a care plan for long-term care services. If, after administration of the CAF, it is decided that long-term care services are not needed, the client will be placed on a list for periodic monitoring by the case manager, so that further action can be taken if the client's situation changes. Development of a Care Plan Form is now under consideration at all four sites. Procedures, process, and

documentation for resource allocation through care plans is an ongoing task to be addressed in the development of the Assessment Manual and Care Plan Guidelines.

V. Comprehensive Assessment and "Nursing Home Certifiable" Procedures:

When the decision is made to administer the comprehensive assessment, the case manager will, at the same time as completing the CAF, follow the procedures and complete the forms required by the state for nursing home "level of care certification" (e.g., New York's DMS-1 form, a version of which will also be used in Minnesota). One goal in designing the CAF was to facilitate the transfer of relevant information to the state certification forms. Each state has a somewhat different form and process for level of care certification, and each S/HMO site is required to follow state procedures. Each state sets the schedule for recertification of enrollees in the "nhc" category. This may vary from 60-120 days.

For enrollees in the "nhc" category, reassessment using state procedures and forms will be performed every 120 days, or more often if 1) there is a significant change in clinical status, or 2) if required by the State. Reassessment to update the CAF is required only at 6-month intervals, and the CAF reassessment can be administered at the same time as the state recertification process that is scheduled near the 6-month CAF reassessment date.

For enrollees who are receiving long-term care services, but are not in the "nhc" category, CAF reassessment will be at a minimum at 6-month intervals.

VI. Verification Procedures:

a. "NHC" Process - Verification:

There will be a process for verification of the level of care certification for NHC enrollees. This will be arranged by each site, subject to HCFA approval. One model currently under discussion in Minnesota involves verification by Medicaid county staff of an ongoing 10 percent sampling of the S/HMO's "nhc" enrollees (both Medicaid-Medicare and Medicare only.) The S/HMO will pay the county for this service. In addition, S/HMO case managers will go through a training process with county Medicaid case managers in level of care certification.

In New York, a similar process of verification by Medicaid staff, on a sampling basis, is currently under discussion.

b. Assessment - Care Plan Monitoring:

During the early months of S/HMO operations, assessment procedures will be closely monitored. Responses from the mailed HSF Questionnaire will be compared with responses from the CAF interview. Resource allocation decisions, based on assessment and developed in care plans, will be monitored. Private foundation monies are being sought to carry out more detailed analyses of resource allocation processes.

APPENDIX XV

KAISER NHC

Only Boxed Items Qualify

1. MOBILITY WITH AIDS (the extent to which the individual gets around alone, using whatever aids (walker, cane, wheelchair) he/she has).
   1. Walks or gets around without difficulty both inside and outside.
   2. Walks or gets around easily inside, can get to various rooms alone, but needs some help.
   3. Gets around in own room, but needs assistance beyond that.
   4. Gets around in room, but uses wheelchair and needs help to transfer; may or may not need assistance to go further.
   5. Does not get around, even in room, without continuous assistance by another person.

2. EATING (with special equipment if regularly used)
   1. Feeds self, chews and swallows solid foods without difficulty.
   2. Feeds self, chews and swallows solid foods which have been cut or pureed.
   3. Needs assistance with feeding, but chews and swallows solid foods (which may have to be cut or pureed)
   4. Needs assistance with feeding and has difficulty with chewing or swallowing, even with food cut or pureed. May need to be fed by tube.
   5. Must be fed intravenously.

3. EMOTIONAL CONTROL
   1. Personal problems, disturbances, emotional states do not particularly restrict the individual's type of living arrangement and companions.
   2. Personal problems, disturbances, emotional states restrict individual's type of living arrangement and companions, but things work out O.K. in present set-up.
   3. Personal problems, disturbances, emotional states restrict the type of living arrangement and companions, and things are not working out O.K. in present set-up.
   4. Person is dangerous or violently abusive to self or others, but is controllable with medications.
   5. Person is dangerous or violently abusive to self or others, not controllable with medications, requires physical restraints.

4. ORIENTATION FOR LIVING ALONE (Oriented means: explains details of care, if any; reasons for it; how long it will be needed. Responsible means actually does the tasks he or she is supposed to do as part of the care.)
   1. Fully oriented and responsible for care of self, if needed.
   2. Fully oriented but needs to be checked up on once or twice a day.
   3. Fully oriented but needs help with activities of daily living.
   4. Is sometimes confused, needs reminders and/or help for activities of daily living, but does not physically wander off.
   5. Is sometimes or frequently confused, needs reminders and/or help for activities of daily living, and physically wanders off regularly.

5. HEALTH CONDITION
   1. Excellent or good physical health; no significant illnesses or disabilities; only routine health care such as annual checkups.
   2. Mild health problems needing short-term attention or corrective measures (wounds requiring dressing changes, bed sores, etc.)
   3. Has one or more moderate medical problems which may be painful or which require medical attention periodically (gets dizzy on movement, etc.)
   4. Highly impaired, confined to bed, requires full time medical assistance or nursing care to maintain certain vital bodily functions (for example, turning for pressure relief and repositioning because of stroke, paralysis, weakness, or other reason)
   5. Unconscious, unable to respond, needs total care for all bodily functions.

6. MANAGING MEDICATIONS (Consider the person's currently prescribed oral, topical, and injectable medications. Select the one category which fits best).
   1. Needs no medications; or if needs them, manages medications alone. Knows what to take, takes them at correct times, keeps them properly.
   2. Medications must be laid out for him/her each week, but no problems taking correct ones at correct times.
   3. Must be given direct daily reminders, but follows them.
   4. Does not manage own medications, needs to have some medication administered to him/her by someone else regularly but less than daily.
   5. Does not manage own medications, needs to have some medication administered to him/her by someone else regularly, and daily or more frequently.

7. USING TOILET
   1. Gets to and from toilet, adjusts clothes, cleans self, etc, without help.
   2. Needs help getting to toilet, but needs no other help.
   3. Gets to toilet, but needs some help once there.
   4. Gets to toilet, but needs total help.
   5. Does not use toilet. Neither gets there, nor handles function without at least some help.

8. CONTINENCE (To what extent are the individual's natural excretory functions under personal control, day and night, whether naturally or with ostomy, catheter, etc.; aid means having another person give an enema, insert a suppository, clean an appliance, etc.)
   1. No accidents, or infrequent accidents; no problems, needs no help or aid.
   2. Accidents once or twice a week, or needs help or aid once or twice a week.
   3. Accidents three to five times a week, or needs help or aid three to five times a week.
   4. Needs assistance regularly (daily or more frequently) with specific parts of activity.
   5. Needs moderate to great assistance. Someone must be present every time to assist with all, or nearly all, parts of the activity.

APPENDIX XVI

ELDERPLAN

New York State NHC Form

NEW YORK STATE DEPARTMENT OF HEALTH
LONG TERM CARE PLACEMENT FORM
MEDICAL ASSESSMENT ABSTRACT
PREDICTOR SCORE ☐

CURRENT PAT. LOCATION
☐ HOSP. ☐ DCF
☐ SNF ☐ HOME CARE
☐ HRF ☐ OTHER
SPECIFY _____

REASON FOR PREPARING FORM
☐ DISCHARGE/TRANSFER TO _____
☐ ADMISSION FROM _____
☐ REVIEW FOR PERIOD FROM _____ TO _____
☐ MEDICAID REVIEW ☐ DEATH
☐ OTHER, SPECIFY _____

PATIENT NAME LAST FIRST M.I. | STREET CITY STATE ZIP | SEX ☐ MALE ☐ FEMALE

PATIENT NUMBERS
S.S. NO. _____
MEDICARE NO. _____
MEDICAID NO. _____
SOC. SERVICE DIST. _____
MEDICAL RECORD NO. _____
ROOM NO. _____

PATIENT DATES
DATE OF BIRTH _____ AGE ____
DATE LATEST HOSP. STAY –
FROM _____
TO _____
DATE THIS ADMISSION _____
RESPONSIBLE PHYSICIAN _____

PROVIDER INFO
NAME _____
ADDRESS _____
MEDICAID NO. _____
MEDICARE NO. _____
DOES PATIENT HAVE PRIVATE INSURANCE?
☐ NO ☐ YES _____

MEDICAL COVERAGE: PATIENT'S CONDITION AND TREATMENT REQUIRING SKILLED SUPERVISION (ALL ITEMS MUST BE COMPLETED)

1. A. DIAGNOSES OCCASIONING CURRENT USE OF SERVICES:
PRIMARY _____
OTHER _____
OTHER _____
OTHER _____
B. NATURE OF SURGERY _____ DATE _____
C. IF PATIENT HAD CVA/MI SPECIFY _____ DATE _____
D. ALLERGIES OR SENSITIVITIES, SPECIFY _____

2. LIST SIGNIFICANT MEDS/INJECTIONS.
(FOR PARENTERAL MEDS ALSO CHECK ITEM 3A)

MED	DOSE	FREQUENCY	ROUTE

3. A. NURSING CARE & THERAPY (SPECIFY DETAILS IN 3D, 3E OR ATTACHMENT)

	FREQUENCY			SELF CARE		CAN BE TRAINED	
	NONE	DAY SHIFT	NIGHT/LVE SHIFT	YES	NO	YES	NO
PARENTERAL MEDS							
INHALATION TREATMENT							
OXYGEN							
SUCTIONING							
ASEPTIC DRESSING							
LESION IRRIGATION							
CATH/TUBE IRRIGATION							
OSTOMY CARE							
PARENTERAL FLUIDS							
TUBE FEEDINGS							
BOWEL/BLADDER REHAB.							
BEDSORE TREATMENT							

OTHER (DESCRIBE)

B. INCONTINENT
URINE OFTEN* ☐ SELDOM** ☐ NEVER ☐ FOLEY ☐
STOOL OFTEN* ☐ SELDOM** ☐ NEVER ☐

C. DOES PATIENT NEED SPECIAL DIET? NO ☐ YES ☐
IF YES, DESCRIBE _____

*MORE THAN ONCE A WEEK **ONCE A WEEK OR LESS

3. D. Is the patient's condition unstable so that an R.N. must detect/evaluate need for modifications of treatment/care on a daily basis?
NO ☐ YES ☐
If yes, describe instability and specific need for nursing supervision, vital signs ranges, lab values, symptoms, etc.

E. Is there high probability that complications would arise in caring for the patient without skilled nursing supervision of the treatment program on a daily basis?
NO ☐ YES ☐
If yes, describe (a) patient's condition requiring skilled nursing supervision (b) the aggregate of services to be planned and managed in the treatment program. Indicate services needed and potential dangers of complicating clinical factors.

F. Circle the minimum number of days/week of complex skilled nursing supervision:

REQUIRES	RECEIVES
0 1 2 3 4 5 6 7	0 1 2 3 4 5 6 7

DVS-1 (1/77)

PATIENT NAME	LAST	FIRST	M.I.	PATIENT S.S. NO.	MEDICAL RECORD NO.	ROOM NO.

4. FUNCTION STATUS	SELF CARE	SOME HELP	TOTAL HELP	CAN NOT	REHAB* Poten.
WALKS WITH OR W/O AIDS					
TRANSFERRING					
WHEELING					
EATING/FEEDING					
TOILETING					
BATHING					
DRESSING					

5. MENTAL STATUS	NEVER	SOME-TIMES	ALWAYS		REHAB* Poten.
ALERT					
IMPAIRED JUDGMENT					
AGITATED (NIGHTTIME)					
HALLUCINATES					
SEVERE DEPRESSION**					
ASSAULTIVE					
ABUSIVE					
RESTRAINT ORDER					
REGRESSIVE BEHAVIOR					
WANDERS					
OTHER (SPECIFY)					

6. IMPAIRMENTS	NONE	PARTIAL	TOTAL		REHAB.* Poten.
SIGHT					
HEARING					
SPEECH					
COMMUNICATIONS					
OTHER (CONTRACTURES, ETC.)					

SPECIFY

7. SHORT TERM REHAB. THERAPY PLAN
(TO BE COMPLETED BY THERAPIST)

A. DESCRIBE CONDITION (NOT DX) NEEDING INTERVENTION	SHORT TERM PLAN OF TREATMENT AND EVALUATION & PROGRESS IN LAST 2 WEEKS	ACHIEVEMENT DATE

B. CIRCLE MINIMUM NUMBER OF DAYS/WEEK OF SKILLED THERAPY FROM EACH OF THE FOLLOWING:

REQUIRES		RECEIVES
0 1 2 3 4 5 6 7	PT	0 1 2 3 4 5 6 7
0 1 2 3 4 5 6 7	OT	0 1 2 3 4 5 6 7
0 1 2 3 4 5 6 7	SPEECH	0 1 2 3 4 5 6 7

8. DO THE WRITTEN ORDERS OF THE ATTENDING PHYSICIAN AND PLAN OF CARE DOCUMENT THAT THE ABOVE NURSING AND THERAPY ARE NECESSARY? NO ☐ YES ☐

9. A. SHOULD THE PATIENT BE CONSIDERED FOR ANOTHER LEVEL OF CARE: NO ☐ YES ☐ IF YES: WHEN? _____
WHAT LEVEL? _____

B. AS A PRACTICAL MATTER, COULD PATIENT BE CARED FOR AS AN OUTPATIENT? NO ☐ YES ☐

C. AS A PRACTICAL MATTER, COULD PATIENT BE CARED FOR UNDER HOME CARE? NO ☐ YES ☐

IF YES TO ANY OF ABOVE, ATTACH A DISCHARGE PLAN.

10. SHOULD THE PATIENT/RESIDENT BE MEDICALLY QUALIFIED FOR SNF CARE? COVERED ☐ QUESTIONABLE ☐ NON-COVERED*** ☐

11. ADDITIONAL COMMENTS ON PATIENT CARE PLAN/REHAB. POTENTIAL _____

12. I CERTIFY, TO THE BEST OF MY INFORMATION AND BELIEF, THAT THE INFORMATION ON THIS FORM IS A TRUE ABSTRACT OF THE PATIENT'S CONDITION AND MEDICAL RECORD.

_____ (SIGNATURE OF DESIGNATED RN AND TITLE)

_____ DATE ASSESS. COMPLETED

TO BE COMPLETED BY U.R. AGENT OR REPRESENTATIVE UPON CONTINUED STAY REVIEW

13. ADDITIONAL INFORMATION BY U.R. REPRESENTATIVE

15. U.R. REPRESENTATIVE PLACEMENT _____

SIGNATURE _____ DATE _____

16. U.R. PHYSICIAN: PLACEMENT _____

14. NEXT SCHEDULED REVIEW DATE _____

SIGNATURE _____ DATE _____

*CHECK THE BOX CORRESPONDING TO APPROPRIATE CRITERION IF THERE IS A LIKELIHOOD THAT THE PATIENT WILL RESPOND UNDER A COORDINATED PLAN OF RESTORATIVE TREATMENT. (INDICATE PLAN IN ITEM 3 E OR 11).

**IF PATIENT HAS SEVERE DEPRESSION, PSYCHIATRIC CONSULTATION SHOULD BE OBTAINED.

*** IF CHECKED "NON-COVERED", SNF PLACEMENT CANNOT BE APPROVED BY MEDICAID.

A. ITEMS 1, 2, 3, 4, 5, 6 SHOULD BE COMPLETED BY NURSE
B. ITEM 7 SHOULD BE COMPLETED BY THERAPIST.
C. ITEMS 8, 9, 10, 11, 12 TO BE COMPLETED IN CONSULTATION WITH THE HEALTH TEAM.

NUMERICAL STANDARDS MASTER SHEET

Numerical Standards for Application for the Long Term Care Placement Form.
Medical Assessment Abstract
(DHS-1)

3.a. Nursing Care and Therapy (Specify details in 3d, 3e or attachment)

	Frequency: None	Daily	Eight/Eve. Shift	Self Care: Yes	No	Can Be Trained: Yes	No
Parenteral Meds	0	25	60	-15	0		
Inhalation Treatment	0	38	37	-20	0	0	0
Oxygen	0	49	49	-4	0	0	0
Suctioning	0	50	50	-1	0	0	0
Aseptic Dressing	0	42	48	0	0	+1	0
Lesion Irrigation	0	49	49	-20	0	0	0
Cath/Tube Irrigation	0	35	60	-1	0	+4	0
Ostomy Care							
Parenteral Fluids	0	50	50				
Tube Feedings	0	50	50				
Bowel/Bladder Rehab.	0	48	48				
Bedsore Treatment	0	50	50				
Other (Describe)	0	0	0				

b. Incontinent

Urine: Often* ☐ 20 Seldom** ☐ 10 Never ☐ 0
Foley ☐ 15

Stool: Often* ☐ 40 Seldom** ☐ 20 Never ☐ 0

c. Does patient need a special diet? No ☐ Yes ☐

If yes, describe _____

4.

FUNCTION STATUS	Self Care	Some Help	Total Help	Can Not
Walks with or w/o aids	0	35	70	105
Transferring	0	6	12	18
Wheeling	0	1	2	3
Eating/Feeding	0	25	50	
Toileting	0	7	14	
Bathing	0	17	24	
Dressing	0	40	80	

5.

MENTAL STATUS	Never	Sometimes	Always
Alert	40	20	0
Impaired Judgment	0	15	30
Agitated (nighttime)	0	10	20
Hallucinates	0	1	2
Severe depression			*
Assaultive	0	40	80
Abusive	0	25	50
Restraint Order	0	40	80
Regressive Behavior	0	30	60
Wanders			
Other (Specify)			

6.

IMPAIRMENTS	None	Partial	Total
Sight	0	1	2
Hearing	0	1	2
Speech	0	10	20
Communications			
Other (Contractures, etc.)			

7.

Short Term Rehab. Therapy Plan (To be completed by therapis

a. Describe Condition (not Dx) Needing Intervention — Short Term Plan of Treatment & Eval. and progress in last 2 weeks. — Achiev Dat

b. Circle Minimum number of days/week of skilled therapy f each of the following:

REQUIRES		RECEIVES
0 1 2 3 4 5 6 7	PT	0 1 2 3 4 5 6
0 1 2 3 4 5 6 7	OT	0 1 2 3 4 5 6
0 1 2 3 4 5 6 7	Speech	0 1 2 3 4 5 6

+ 37 for skilled rehab/therapy (received & required both > 0)

NOT ELIGIBLE < 60 pts.

60 – 179 pts. ICF

180 > SNF

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